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To modernize refinery processes *now is a sound business proposition*

To build while costs are low and production slow is a basic business axiom. During the past few months The M. W. Kellogg Company has undertaken the rebuilding of a number of old cracking units to bring their operation to present standards and to meet present marketing conditions.

Now is the time to push refinery modernization programs to assure increased earnings.

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Improved Position of the Petroleum Industry Is Complete Justification of Better Prices

By ANDREW M. ROWLEY

WITH general business conditions showing a distinct improvement, and the petroleum industry in the best statistical position it has enjoyed in many years, the thought of leaders of the oil business should be turned toward taking advantage of these conditions and solidifying gains rather than taking a bearish attitude on the price outlook. Better prices are absolutely necessary to improvement of all business and probably in no other industry do conditions warrant and justify increases in prices as much as in the oil business.

Crude oil production is 15 per cent less than at this time last year with the total output below requirements, necessitating fairly heavy withdrawals from storage. Gasoline imports have been shut out entirely by the excise tax on the product. Demand is only 5 per cent less than it was last year, the year of peak consumption in the entire history of the industry.

Price structures have been maintained in the face of part of the crude oil and gasoline demand being supplied by illegally produced crude and gasoline made from this illegally produced crude. In other words, there is a ready market for more crude oil and gasoline than production figures indicate. With efforts now being made to stop this illegal production, further strengthening of the markets should result from success of such efforts.

Facts and figures on field operations this year should explode the old theory that higher crude oil prices would result in drilling campaigns which would drown the industry in a flood of oil. There has been a substantial increase in the number of wells completed this year as compared to last and yet the initial production of this greater number of wells is considerably below that of the less number of wells completed during the similar period last year.

Reports of oil companies for the second quarter of this year certainly reflect the benefit of better prices for crude oil and gasoline effective since April 1. If these prices are maintained during the remainder of this year, every legitimate oil company in the business probably will show a profit for the year as compared to the millions of dollars in losses shown in reports covering last year.

Crude Oil Production in the United States

Estimated daily average production for the week ending August 6, and a comparison with previous week and one year ago, follows:

	Aug. 6	July 30	Aug. 8, 1931
Oklahoma—			
Oklahoma City	105,470	73,910	84,585
Seminole-St. Louis	117,545	111,720	115,690
Remainder of State	208,405	208,185	220,560
Total Oklahoma	431,420	393,815	420,835
East Texas—			
Lathrop	125,104	125,594	147,918
Kilgore	99,698	100,022	275,721
Joiner	104,510	105,010	230,607
Total East Texas	329,312	330,626	654,246
West Texas	178,653	178,305	204,953
North Central Texas	74,235	74,196	78,149
Texas Panhandle	55,361	56,851	55,020
East Central Texas	57,546	57,946	50,051
Gulf Coast Texas	119,196	115,432	120,448
Southwest Texas	60,510	61,687	62,094
Total State of Texas	874,813	875,043	1,224,961
Kansas	93,515	95,855	101,930
North Louisiana	29,335	29,915	31,415
Gulf Coast Louisiana	31,104	31,648	27,920
Arkansas	34,115	34,140	38,305
Eastern fields	117,000	117,000	105,000
Rocky Mountain area	83,401	84,250	94,441
California—			
Santa Fe Springs	57,500	57,750	62,250
Long Beach	68,500	68,250	74,750
Playa Del Rey	14,500	14,500	24,000
Elwood	14,000	14,000	26,500
Kettleman Hills	60,250	61,500	60,000
Remainder of State	252,000	254,000	259,500
Total California	466,750	470,000	507,000
Total United States	2,161,453	2,131,666	2,551,807

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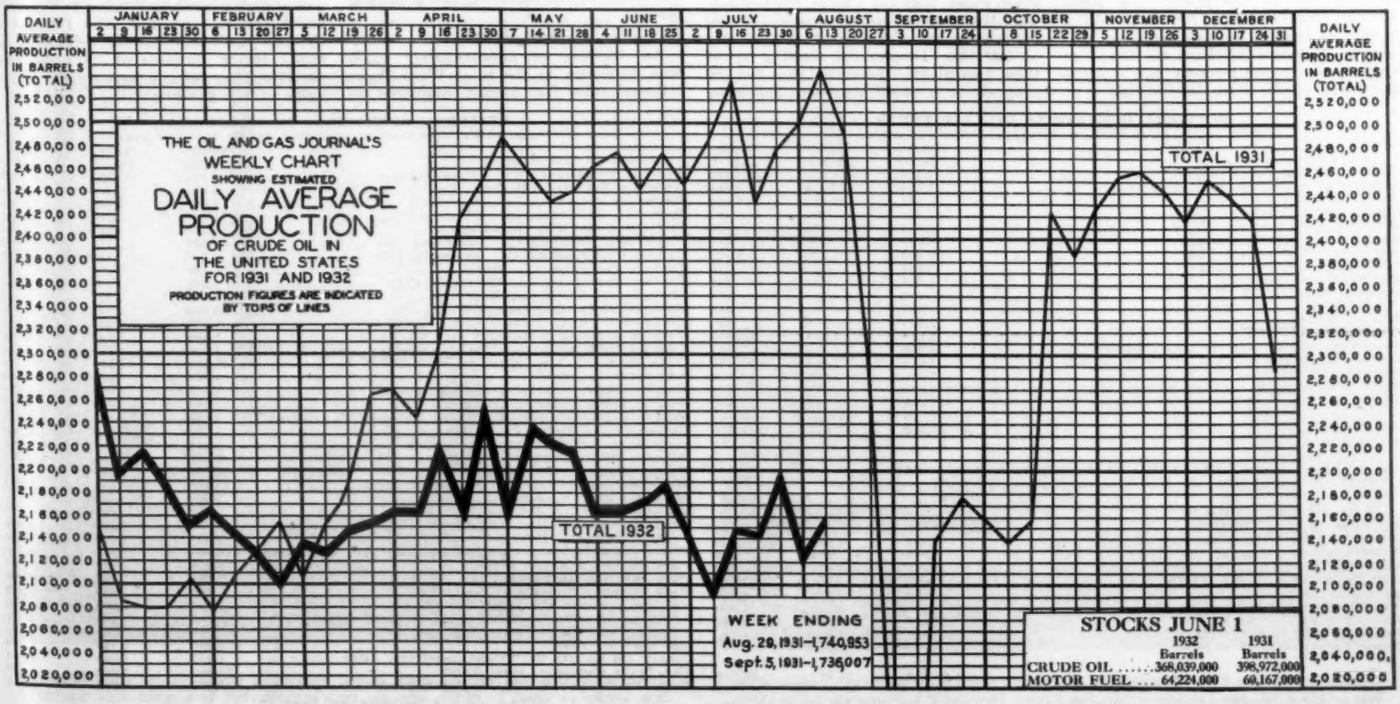


Mid-Continent Refiners Are Holding Crude Runs to Current Market Demand for Gasoline

By W. T. ZIEGENHAIN

Daily average crude runs in Mid-Continent refineries will be 5,545 bbls. less during August than July. The total combined schedule calls for a daily average of 427,410 bbls. for August, compared with 433,255 bbls. in July. The present low average is emphasized when a review is made of the operations during August of past years, for example, a year ago this group of refineries was running 590,545 bbls. daily and two years ago, 526,400 bbls.

A few new plants of small capacity have been started up within the past month to indicate a growing confidence in the refinery economic situation over the balance of the year but the effect of these has been small and the operations of the entire area continues to be dominated by the determination that crude runs be held to market demands for refinery products.

There continues to be a long list of shutdown plants in the Mid-Continent area. In all there are 31 refineries which have operated over the past year but which are now shut down. The greatest concentration of idle plants is in the North Central Texas area where 13 of the total of 47 plants remain inoperative. Although this would indicate that 30 per cent of the refineries are idle the figure is a little misleading. Most of the plants which have been shut down are small and do not represent a like percentage of total capacity. Other areas in which there are a number of idle plants include West Texas with six and East Texas with five.

Mid-Continent Refinery Operations

Crude Runs to Stills

	1929	1930	1931	1932
January 1	508,550	535,460	478,795	405,910
February 1	506,800	519,355	470,125	411,280
March 1	514,950	531,500	449,634	401,155
April 1	530,530	555,250	497,391	419,750
May 1	577,500	574,300	510,640	436,160
June 1	583,030	572,250	567,915	440,765
July 1	565,800	548,475	588,840	433,255
August 1	555,250	526,400	590,545	427,710
September 1	552,300	498,710	588,105	.....
October 1	544,720	518,800	472,190	.....
November 1	545,473	506,700	480,440	.....
December 1	540,630	478,360	456,525	.....

Operations by Districts

District—	August 1 Dly. crude capacity (bbls.)	August 1 Dly. crude runs (bbls.)	July 1 Dly. crude runs (bbls.)	August 1 daily decrease (bbls.)
Arkansas	48,000	21,200	20,700	*500
Kansas	153,500	80,150	81,600	1,450
North Louisiana	41,000	27,800	27,050	*750
Oklahoma	309,700	151,050	155,670	4,620
North Central Texas	204,800	92,735	93,875	1,140
West Texas	139,400	37,100	35,760	*1,340
East Texas	79,500	17,675	18,600	925
Total	976,900	427,710	433,255	5,545

*Increase.

Oklahoma

Oklahoma refinery runs will be 4,600 bbls. less during August than July, this small decrease being the result of a general program of further curtailing runs. There are numerous small improvements underway in the Mid-Continent area, some of the larger jobs including a 3,000-bbl. combination topping and reforming unit at the Ponca City plant of the Empire Oil & Refining Co., a 1,500-bbl. vacuum asphalt reducing unit for the Anderson-Pritchard Oil Corp., at Cyril, and a vapor recovery and stabilizing plant at the Pure Oil Co. plant at Muskogee. A new plant to be added to the list is that of the Speedway Gasoline Refining Co. which operates a 400-bbl. topping unit in Oklahoma City.

North Central Texas

The crude runs of the North Central group of refineries will approximate those of the past month, the only important change being the addition of the Moon Refining Co. at Graham and the Pilot Point Refining Co. at Pilot Point. The Moon plant has a capacity of 300 bbls. daily and the Pilot Point refinery of 500 bbls. Despite the starting up of these two plants, the crude runs for the area shows a small decrease, indicating the desire to hold operations in line with current refined oil demands.

East Texas

Refinery operations in the East Texas plants show very little change during August from those of July. Operations have settled down to a rather constant routine while the schedules of the individual plants remains practically unchanged. There has been no revision in the status of the operating and shutdown plants.

West Texas

An increase of approximately 1,500 bbls. is shown in the total West Texas refinery runs for August compared to July, the slight change being accounted for principally by the higher schedule of the Coltex Refining Co. in its plant at Colorado. No change has occurred in the status of the operating and shutdown plants.

North Louisiana and Arkansas

Except for the addition of the Cedar Grove Refining Co.'s plant at Shreveport to the list of operating refineries, there is no important change in the operation of the North Louisiana and Arkansas group. The Cedar Grove Refining Co. was formed recently to take over the operation of the plant previously known as the Dartois Refining Co.

Kansas

Kansas refineries will run slightly less crude during August than July, the present schedule being 80,150 bbls. compared with 81,600 bbls. a month ago. Some consideration has been given to the resumption of operations in the Argentine plant of the Sinclair Refining Co. pending a suitable settlement of the question of city taxes there but no definite announcement of this has been made by the company to date. If the plant grounds are excluded from the city the company is said to be willing to reopen the plant and expand its facilities.

Two new projects have been announced in the past two weeks that will increase the Kansas refining capacity about 9,000 bbls. The larger of the two involve the building of a 6,000-bbl. combination topping and cracking plant at McPherson by the Globe Oil & Refining Co. The other refinery to be built is that of the Dickey Oil Co. This will be a 3,000-bbl. skimming and cracking unit, if tentative arrangements are completed and will be located at McPherson, also.

The Skelly Oil Co. has practically completed the revision of one of its cracking units. Floor tubes were added to the furnace and a Leach exchanger installed to give the effect of increased heating and a higher antiknock value is expected on the cracked gasoline. The Derby Oil Co. has just completed the revamping of two cracking furnaces at its plant and the effect has been to improve the knock value of the gasoline.

REFINERY OPERATIONS IN EAST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Arrow Refining Co., Overton	2,500	250	1,000
Beacon Oil & Refining Co., Henderson	2,500	1,150	1,000
Boone Refining Co., Arp	500	850	1,000
Constantin Refining Co., Overton	3,000	(*)	(*)
Diamond Refining Co., Overton	3,000	675	600
East Texas Refining Co., Henderson	6,000	(*)	(*)
East Texas Refining Co., Longview	10,000	5,500	7,000
Gladetex Refining Co., Galdewater	500	300	450
Gladewater Refining Co., Gladewater	1,000	450	250
Guillory Refining Co., Kilgore	200	(*)	(*)
V.O.E. Refining Co., Gladewater	500	530	550
Kilgore Refining Co., Kilgore	1,500	370	900
Overton Refining Co., Overton	3,500	1,600	1,000
Petroleum Refractionating Co., Longview	10,000	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	1,400	1,250
Southern Oil Refining Co., Kilgore	2,500	1,000	1,000
Slack Petroleum Co., Willow Springs	2,500	(*)	(*)
Taylor Refining Co., Tyler	15,000	3,000	2,600
Total	79,500	17,675	18,600

*Shut down.

REFINERY OPERATIONS IN ARKANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Berry Asphalt Co., Waterloo	2,000	1,000	1,000
Henry H. Cross Co., Smackover	8,000	4,000	4,000
Houston Oil Co., Camden	6,000	(*)	(*)
Kettleman Creek Refining Co., Pearson	5,000	1,500	1,500
Lion Oil & Refining Co., El Dorado	12,000	4,500	4,700
Macmillan Petroleum Products Co., Norphlet	2,000	2,000	2,000
Ouachita Valley Refining Co., El Dorado	2,000	1,200	1,000
Root Refining Co., El Dorado	10,000	4,500	4,000
Simms Oil Co., Smackover	3,000	2,500	2,500
Union Asphalt Co., El Dorado†	.....	.....	.....
Total	48,000	21,200	20,700

*Shut down. †Reduces residuum purchased from Lion Oil & Refining Co., no crude run.

REFINERY OPERATIONS IN OKLAHOMA
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Altitude Petroleum Corp., Oklahoma City	3,000	600	600
Anderson-Prichard Oil Corp., Cyril	5,000	3,250	3,000
Barnsdall Refineries, Inc., Barnsdall	6,000	3,250	3,200
Barnsdall Refineries, Inc., Okmulgee	10,000	2,500	2,400
Bell Oil & Gas Co., Grandfield	4,500	2,000	1,800
Black Gold Refining Co., Oklahoma City	1,500	700	700
Capital City Refining Co., Oklahoma City	2,500	150	150
Century Petroleum Co., Tulsa	500	(*)	(*)
Century Petroleum Co., Oklahoma City	2,500	1,200	1,000
Champlin Refining Co., Enid	16,000	7,000	8,500
Continental Oil Co., Sapulpa	10,000	1,400	1,500
Continental Oil Co., Ponca City	30,000	11,500	12,000
Cushing Refining & Gasoline Co., Blackwell	1,800	1,500	1,000
Cushing Refining & Gasoline Co., Cushing	3,500	2,500	2,500
Deep Rock Oil Corp., Cushing	10,000	10,000	10,000
Eason Oil Co., Enid	5,000	3,000	3,000
Empire Oil & Refining Co., Okmulgee	4,000	3,000	3,300
Empire Oil & Refining Co., Ponca City	12,000	8,000	8,000
Garber Refineries, Inc., and Omar Refining Co., Garber	3,500	2,100	2,200
Globe Oil & Refining Co., Blackwell	7,500	6,500	6,500
Gulf States Oil Corp., Oklahoma City	3,500	700	700
Johnson Oil Refining Co., Cleveland	6,000	4,000	4,500
Major Oil Co., Oklahoma City	2,000	200	200
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	18,000
Marathon Oil Co., Boynton	2,500	1,500	1,500
Marathon Oil Co., Bristow	5,000	(*)	(*)
Phillips Petroleum Co., Okmulgee	5,000	3,500	5,000
Producers Oil Co., Bristow	2,500	1,000	1,000
Producers & Refiners Corp., West Tulsa	6,000	2,800	4,000
Pure Oil Co., Ardmore	5,000	2,700	2,400
Pure Oil Co., Muskogee	9,000	7,000	7,000
Rock Island Refining Co., Beckett	5,000	4,000	4,180
Sinclair Refining Co., Sand Springs	8,000	2,300	2,300
Speedway Gasoline Refining Co., Oklahoma City	400	200	(*)
Sterling Refining Co., Oklahoma City	2,000	700	650
Sun Oil Co., Yale	5,000	3,000	3,000
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	4,000	4,000
The Texas Company, West Tulsa	15,000	9,000	9,000
Texas Pacific Coal & Oil Co., Wynnewood	3,000	1,500	1,500

(Continued on Page 30)

Cracking and Reforming Unit Yields 70 Per Cent 67 Octane Gasoline From Garber Crude

By W. T. ZIEGENHAIN

Garber Refineries, Inc. (Omar Refining Co.) has just completed a program of modernizing its plant at Garber, Okla., as a result of which 70 per cent 400 endpoint gasoline of 67 to 68 octane number is made from the local crude. This has been accomplished by installing a combination "liquid-vapor phase" cracking and naphtha reforming unit, a complete vapor recovery, pressure distillate debutanizer and stabilizing unit. In addition, changes have been made in the continuous treating system and in the general plant operation to facilitate making a motor gasoline of high antiknock value consistent with low gum content and economical operation. The routine of the plant operation will be summarized briefly and then the various changes will be discussed.

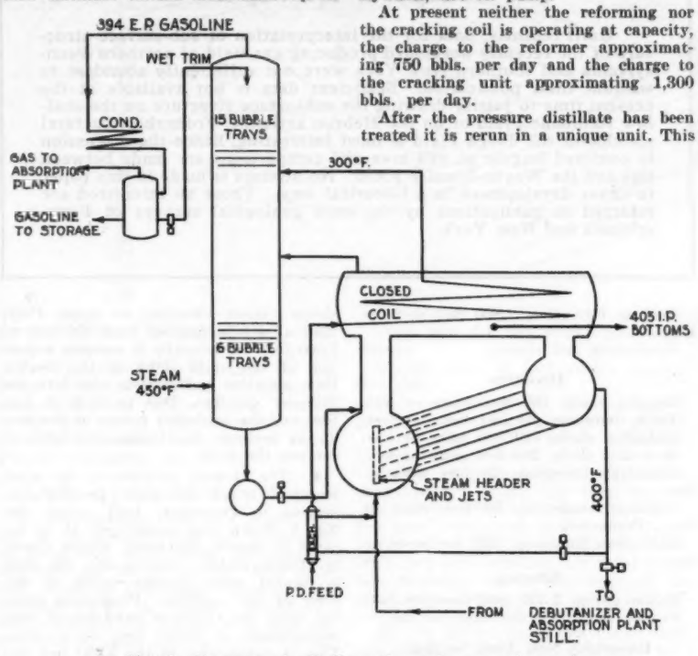
Normal Operation

As the plant receives the local 43.5-44 gravity Garber crude, 58 per cent is taken off overhead in the Winkler-Koch pipe still and shell stills which make up the topping unit. Of this 58 per cent overhead, 24 per cent of it is taken off as a 300 endpoint straightrun gasoline having an octane number of 61. The other 34 per cent is made up of 24 per cent 437 endpoint naphtha as charging stock for the reforming unit and 10 per cent kerosene, which is sold as such or used with the naphtha as charging stock for the reformer. The topped crude, which represents about 40 per cent of the total goes to the new cracking unit.

The 300 endpoint straightrun gasoline is segregated and except for treating is ready to be blended for shipment. When a demand arises for low octane gasoline of U. S. Motor specifications, some of this gasoline is blended with a portion of the 437 endpoint naphtha to supply it.

Cracking and Reforming Unit

The new combination cracking and reforming unit was designed by the Winkler-Koch Engineering Co. to produce 2,000 bbls. of pressure distillate per day. Its design and operation is conventional except that one furnace accommodates both the cracking coil and the reforming coil. Also, both streams are discharged into a common tower and lose their identity there. The overhead pressure distillate stream thus made up of



Simple diagram of oil flow through rerunning unit

reformed and cracked products goes to storage to be treated and rerun. The fuel oil bottoms coming from the unit have a gravity of between 8 and 9 A.P.I.

The oil at the outlet of the reforming coil is held near 1,004° F. and at 400 pounds pressure. The oil at the outlet of the cracking coil is held near 920° F. and at 450 pounds pressure. There is a pressure drop of approximately 200 pounds through each coil. The heated charging stock going to the cracking coil is fed by a National Transit, crank and flywheel, hot oil pump.

At present neither the reforming nor the cracking coil is operating at capacity, the charge to the reformer approximating 750 bbls. per day and the charge to the cracking unit approximating 1,300 bbls. per day.

After the pressure distillate has been treated it is rerun in a unique unit. This unit was revamped to utilize the shell, settings and tower of a Jenkins cracking unit that had been in service for a long time but which has passed its utility for high pressure work. H. L. Welton, general superintendent of the refinery, is credited with having incorporated changes in the original unit to effectively adapt it to its new service without making costly expenditures. The revised unit affords the indirect heating of the distillate and this in turn holds down the formation of gum in the finished gasoline.

The accompanying drawing shows the scheme of operation in a general way and in it the pressure distillate feed is seen entering the unit by way of an exchanger after which it passes through the submerged, closed coil in the still. The oil enters the coil at 200° F. and leaves the coil in the still at 300° F. The stream enters the bubble tower just below a tier of 15 plates.

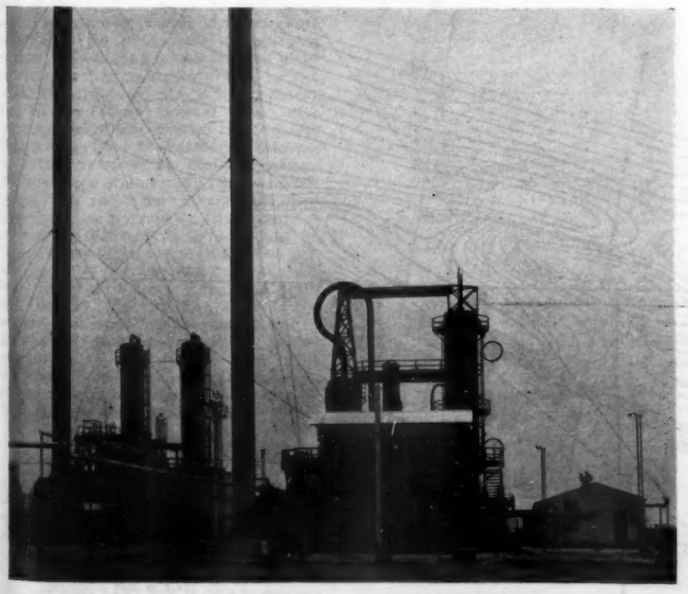
The top of the tower is controlled by a wet trim by utilizing a portion of the condensed overhead as pump-in. The temperature in the top of the tower is maintained close to 250° F. The gasoline leaving the tower has an endpoint between 390 and 400° F. Steam at 450° F. is injected into the tower near its base to aid in stripping the light fractions from the distillate.

The distillate bottoms, approximating a heavy kerosene in quality, are either stripped of their light ends in a separate still and sold as furnace oil, or blended back with the charging stock for the reforming unit. These bottoms are withdrawn from the system at a point near the center of the shell in which the closed coil is located. Here there is less chance for light ends to be included and control is maintained so these bottoms have an initial of about 405° F.

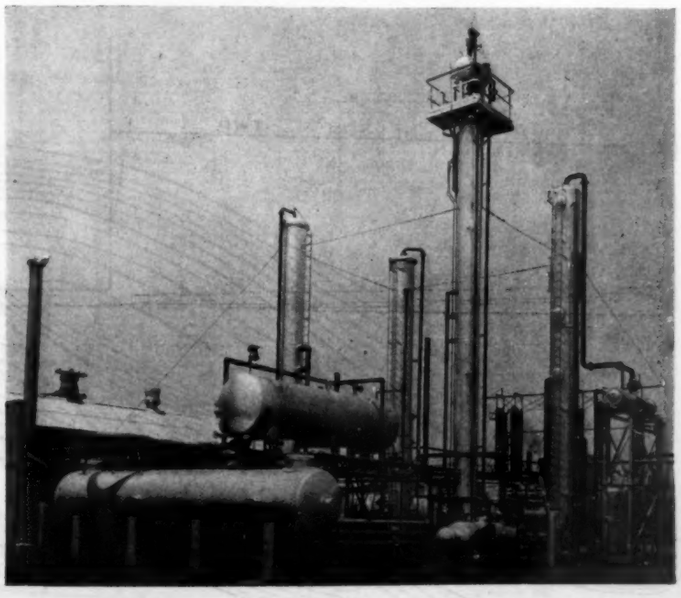
Because the base of the tower is below the level of the oil in the still at its point of entry, it is necessary to transfer it with a pump and a small intermediate surge tank and float control facilities smooth operating conditions.

The new vapor recovery plant has been designed to handle 1,500,000 feet of gas per day. Approximately 950,000 feet comes from the cracking and reforming equipment, 170,000 feet from rundown and storage tanks and 60,000 feet are returned from the pressure distillate stabilizer. The stabilizer produces approxi-

(Continued on Page 30)



General view of pressure distillate rerun unit on the left and new combination cracking and reforming unit on the right. These produce 400 endpoint gasoline of 71 octane number



New vapor recovery, pressure distillate debutanizer and stabilizer equipment producing 140 bbls. of 27 vapor pressure natural gasoline daily and reducing the vapor pressure of the distillate to 4 pounds

Subsurface Structure of the Northern Pennsylvania and Southern New York Natural Gas Fields

By J. FRENCH ROBINSON[1], VERNER JONES[2] and J. GADDESS[3]

Scope of the Paper

Until recently, data for the interpretation of sub-surface structure of the recently developed producing gas field of northern Pennsylvania and southern New York were not sufficiently abundant to warrant their publication. Sufficient data is not available at the present time to justify drawing the subsurface structure on the shallow Rathbone Field or on the Hebron anticline. From the structural standpoint the Tioga Field is most interesting, hence the discussion is confined largely to this area and comparisons are made between this and the Wayne-Dundee Field. No attempt is made in this paper to cover development in a historical way. Those so interested are referred to publications by the state geological surveys of Pennsylvania and New York.

1. The Wayne-Dundee Field (see Map No. 1) is located in Yates, Schuyler and Steuben Counties, New York. Development began in March, 1930. Structurally the field is situated on the Fir Tree Point anticline and occupies a definite closure with two highs, one of which produces sweet gas (Wayne closure) and the other produces sour gas (Dundee closure), supposedly from the Oriskany sandstone.

2. The Tioga Field is located in Lawrence, Farmington and Tioga Townships, Tioga County, Pennsylvania. Intense development began in September, 1930. Structurally the field is situated on the Sabinsville anticline which is one of a series of large folds formed contemporaneously with the more intense Appalachian folding. It lies within a district of gentle folding which occupies at least the northern flank of the Appalachian geosyncline. It is within this district of gentle folding in particular that much of the petroleum and natural gas of Pennsylvania and West Virginia and all of that in New York has been produced.

Stratigraphically the surface outcrops in the immediate vicinity are of the Chemung formation, the younger Catskill formation outcropping in the syncline to the south. Well locations are at about the middle of the Chemung. The geologic section as penetrated by the drill is as follows:

Based, in part, on correlations of L. E. Shoemaker, well log made by Dr. Charles E. Fettke.

Chemung formation, 1,000 feet more or less. (Total thickness 2,000 feet more or less.)

Sandstones and shales.

Portage formation, 1,800 feet more or less.

Sandstones and shales.

Devonian

Genesee shale, 160 feet more or less.
Tully limestone, 80 feet more or less.
Hamilton shale, 700 feet more or less.
Marcellus shale, 200 feet more or less.
Onondaga limestone, 28 feet more or less.
Oriskany sandstone, 50 feet more or less. (Production.)
Helderberg limestone, 275 feet more or less.

Silurian

Salina group, 2,300 feet more or less.
Vernon shale, 600 feet more or less.

Resembles New York Section

It is noteworthy that this series resembles more closely the New York State section, outcropping along the northern boundary of the geosyncline, than it does the Pennsylvania section outcropping along the Appalachian front.

3. The Rathbone Field (Steuben County, New York) was opened in July, 1931. It differs from the other fields described in this paper in that production is obtained from shallow lenticular sandy shales (lower Chemung or upper Portage) at depths ranging from 300 feet to 1,500 feet. Structurally it occupies a portion of the south flank of the Beaver Dam anticline and extends well into the Millport syncline. Due to lack of key beds and the lenticular nature of the producing horizons, no attempt was made to contour the field.

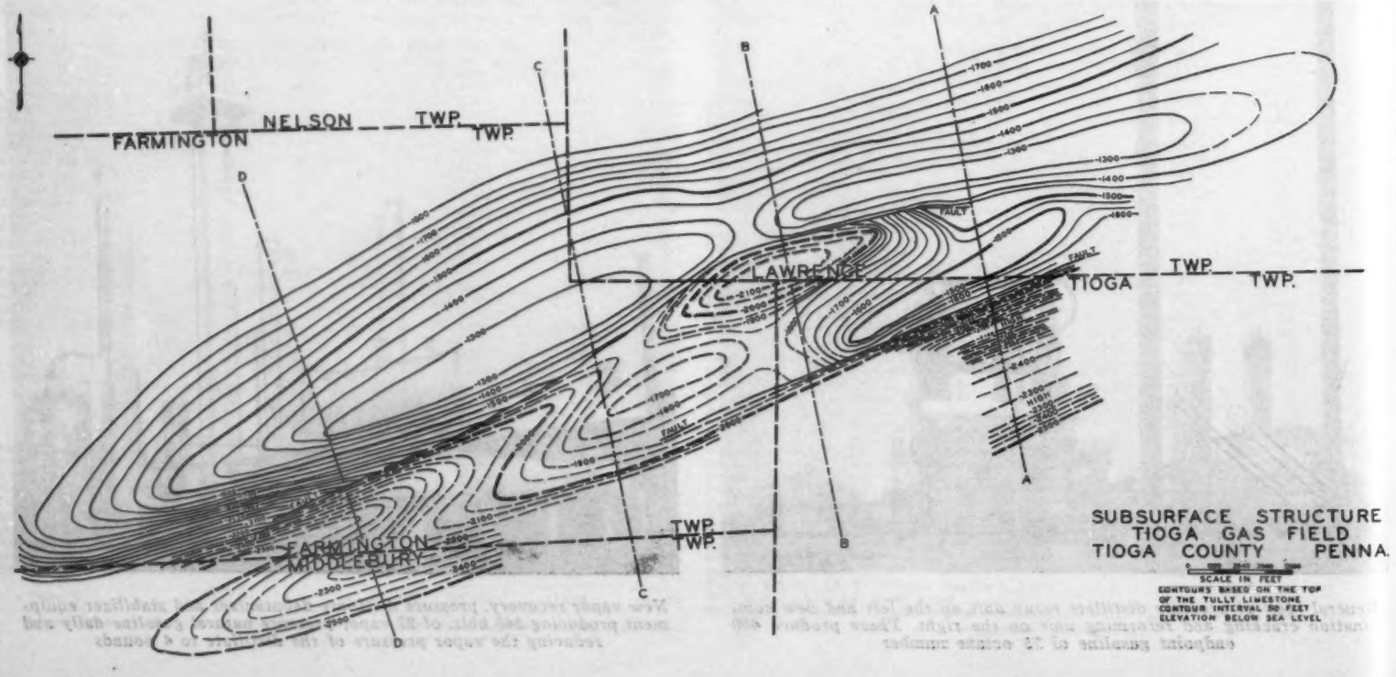
4. The Hebron anticline is the most recent field of the area. Development started in December, 1931, when the No. 1 Booth was completed. It is located in Hebron Township, Potter County, Pennsylvania. Structurally the well is located some distance north of the crest of the anticline. Production coming from the Oriskany sand which was encountered at 3,075 feet below tide. This is comparable to the 2,250 feet below tide contour of the Tioga Field. The Tully-Oriskany interval is here about 880 feet, the Tully limestone being reported to have a thickness of 5 feet.

The Sabinsville anticline, as developed at the surface in the Tioga region, is typical of the type of folding which exists throughout the productive and potential natural gas areas of southern New York and northern Pennsylvania. The south flank is steeper than the north in a ratio of about 2.5 to 1 and few faults appear at the surface. The original surface structure was determined by means of dip measurements and resulted in interpretations placing the crest of the fold accurately enough in the western portion of the field, but extending it through what has been shown to be a subsurface sink and across to the Meeker area to the east. More recently key bed work has been carried on with results which are said to be more accurate. Glacial debris is a decided handicap as it covers much territory which would otherwise furnish good bed rock exposures. It is not the intention of the writers to discuss the surface structure.

Least Disturbed by Faulting

The Elbridge area is least disturbed by faulting though the main fault of the field is believed to pass just south of the producing area and continues at least to the western edge of the map. (Map of Tioga Field contoured on Oriskany sand.) It is at present impossible to determine where the fault passes into an overturned fold since the south flank may stand almost vertically along a portion of the postulated fault (cross section CC—DD).

Proceeding eastward to the more complicated portion of the structure it appears certain that the fold has been faulted in the A. C. Smith well where the Tully limestone was encountered at two distinct elevations by the drill, namely, at 1,444 feet below tide and at 1,984 feet below tide. The behavior of the limestone here gave the best clue to the dip of the fault. It is in this area that the maximum throw occurs (540 feet), the fault dying out more rapidly to the east than to the west. Here a pronounced sink occurs on the south side of the fault and a saddle on the north (Section B—B). As the fault continues eastward it separates two producing areas, namely, the Boom and the Meeker. It is believed to die out in the vicinity of the Tioga River. The Meeker area is about 250 feet below the Boom



[1] J. French Robinson, manager, Lycoming Natural Gas Corp., Wellsboro, Pa.
[2] Verner Jones, instructor, Cornell University, Ithaca, N. Y.
[3] J. Gaddess, Allegheny Gas Co.
Presented at the second Pennsylvania Petroleum and Natural Gas Conference, Pennsylvania State College, State College, Pa. May 20, 1932. Published by permission of the director of Mineral Industries Research.

area on the Oriskany sandstone. The eastern closure of the Boom area is not especially pronounced when considered in relation to the structure as a whole. In this respect it is typical of eastern closures of nearly all northern Pennsylvania and New York structures.

Second Fault Well Defined

A second fault is well defined on the south side of the Meeker Pool, its position being fixed by the No. 2 Meeker well and the M. V. Whitney well in which the Tully limestone was encountered by the drill at 1,854 feet below tide and again at 1,924 feet below tide. These two locations together with the A. C. Smith on the north fault comprise the only direct evidence of faulting in the Tully limestone. The south fault is believed to account for the exceedingly great depth to the Oriskany sand in the No. 2 Meeker well. The faults, as illustrated, run nearly parallel to the axes of the folds and at no place are known to cut across them.

The Meeker area may be regarded in part as an uplifted fault block, although it may more probably be considered as the high of a continuous minor fold which parallels the major field. Here again the east closure is gently dipping.

Contours drawn on the Tully limestone (the 1,000-foot lime) show very similar features to those just described. (Map of Tioga Field contoured on Tully limestone.) The outstanding differences being (1) the faults have less throw on the Tully limestone than on the Oriskany, are not so persistent along the strike; (2) the Boom area is lengthened; (3) the eastern portion of the Meeker closure appears as a terrace closure on the south side of the Boom area.

The Tully-Oriskany interval which in undisturbed areas averages around 1,000 feet, is locally increased in numerous instances near the fault zone. Repetition by faulting on drag folding is thought to be responsible for this increase.

Two Structures Compared

The Wayne-Dundee structure is similar to the Tioga structure in that it has a steep south flank. (Map of Wayne-Dundee Field.) The former is located nearer the northern edge of the geosyncline, hence production is obtained at shallower depths, and since it is further away from the Appalachian front, it is not so steeply folded. No subsurface faults have been found in the Wayne-Dundee area.

In the Wayne-Dundee area there is an apparent convergence between the Parrish limestone and the Oriskany toward the west since the eastern portion (sour gas) of the field is shown to be highest on the contours drawn on the surface of the Parrish limestone, while the western portion (sweet gas) of the field is highest as shown by contours drawn on the Oriskany sandstone. The convergence of the Tully-Oriskany interval (950 feet) going westward is not more than 10 feet thus showing that the maximum thickening occurs between the Tully limestone and the Parrish limestone. Such a conception, though at present generally considered as most probable, does not explain why the eastern area should be sour gas and the western area sweet gas. One plausible explanation may be that these are two distinct producing horizons, namely, the Oriskany sand in the western area, and the Coeymans sand in the eastern area; the Oriskany having been eroded in the eastern area. This explanation would account for the postulated convergence cited herein, thereby changing the structural picture.

Differences Illustrated

Differences in characteristics are illustrated by wells drilled near Ligonier, Westmoreland County, Pennsylvania, in which the Oriskany sand was encountered at a depth of 6,807 feet and produced sweet gas at a depth of 6,827 feet. Sour gas was obtained at depths of 7,428 feet and 7,440 feet in the Coeymans sand. The Coeymans sand is separated from the Oriskany sand by only a few feet of limestone.

These two distinct sand bodies have been encountered in the Tioga Field in a well on the Sabinsville anticline (Allegany Kemp well) and in a well on the Wellsboro anticline (Allegany Davey well). Here about 20 feet of limestone separated the two sands.

Other factors which may account for such a separation of the field are, the lack of sand or a tight sand area between the two producing areas. Subsequent drilling should throw much light on this point.

The Tully-Oriskany interval in the Tioga Field varies from averages of around 960 feet in the eastern portion to 920 feet in the extreme western portion. It is probable that there is much greater convergence above the Tully.

Limits of Production in the Pools

In the Elbridge area the nearly flat top is known to extend for a distance of about 3¼ miles along the crest of the fold and about one-half mile wide over much of this length. This area is included within the highest contour (2,250 feet below tide). Production thus far has been obtained down to 2,460 feet below tide, thus giving a productive area about 6 miles long and up to 2 miles wide.

In the Boom area the fold is sharper at the crest. The highest contour is here 2,250 feet below tide. Production in this area extends to 2,350 feet below tide and is expected to extend 2,450 feet below tide on the north. Further drilling and subsequent data may establish the Elbridge and Boom areas as a continuous high.

The Meeker area has a small upper closure at 2,500 feet below tide. No production has been obtained below 2,570 feet below tide. Laterally it is about 1½ miles long and one-third of a mile wide. The amount of productive closure decreases with the area of closure.

Elbridge area, 250 feet known productive closure.

Boom area, 100 feet known productive closure.

Meeker area, 70 feet known productive closure.

Wayne-Dundee Field, New York, sour gas 90 feet known productive closure.

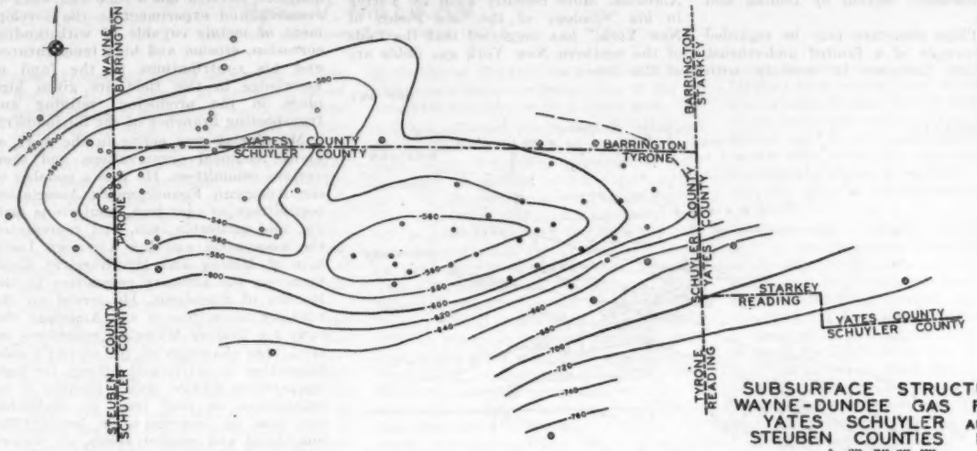
Sweet gas, 40 feet known productive closure.

On the north flank of the major anticline no salt water has been encountered above 2,550 feet below tide but it has been encountered in every well completed below this depth. On the south flank two wells obtained salt water above this elevation due to proximity of the fault zone. (Penn-United Boom and Lycoming No. 2 Herrington.)

On the south side of the major fault and north of the Meeker area wells have been completed to as much as 3,178 feet below tide, (Lycoming Decker) which encountered neither gas nor water.

Origin of the Folds

The Appalachian revolution at the close of Paleozoic time was responsible for the folding though other disturbances were influential. Among the most prominent of these was the Taconic disturbance at the end of Ordovician time. The latter was resposible for a high which gives closures where the Appalachian folds cross the Tavonic disturbance belt. The area in which its effect may be observed forms a belt extending in breadth from west of the Tioga Field to east of Elmira, N. Y., and in length northward through the Wayne-Dundee Field, New York. Its southern extension into Pennsylvania is not well established.



SUBSURFACE STRUCTURE
WAYNE-DUNDEE GAS FIELD
YATES SCHUYLER AND
STEUBEN COUNTIES N.Y.

SCALE IN FEET

CONTOURS BASED ON THE TOP OF THE ORISKANY SANDSTONE
CONTOUR INTERVAL 20 FEET
ELEVATION BELOW SEA LEVEL

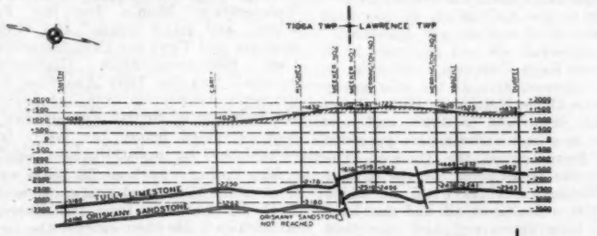
LEGEND
○ SWEET GAS WELL
● SOUR GAS WELL
○ DRY HOLE

In the Tioga Field the stresses were taken up to a certain extent by the minor folding to the south and by faulting parallel to the trend of the fold. The throw of the main fault has been interpreted to be greatest where the saddles of both faults lie opposite each other. In other words, where relief was not sufficiently obtained by means of folding a fault resulted.

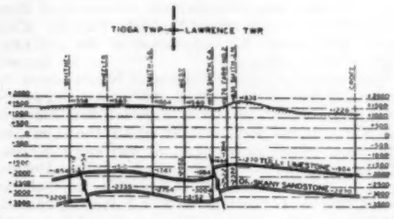
Any theory which proposes to explain such folding as is exemplified in the Tioga Field must take into consideration:

1. The position of the relatively competent beds in the sedimentary section.
2. The regional dip.
3. Relative location on the geosyncline, or regional dip.
4. Decrease in severity of folds to north.

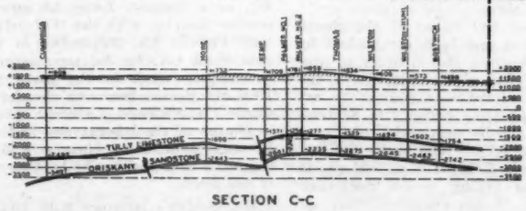
(Continued on Next Page)



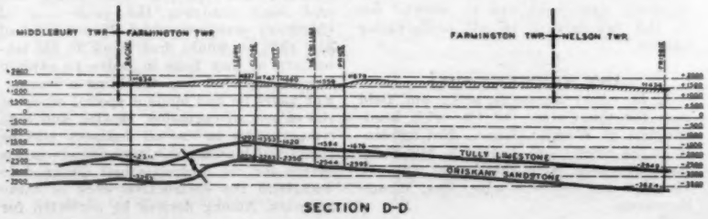
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

CROSS SECTIONS
TIOGA GAS FIELD
TIOGA COUNTY PENNA.
SHOWING RELATIONS OF
TULLY LIMESTONE AND
ORISKANY SANDSTONE

VERTICAL AND HORIZONTAL
SCALE IN FEET
THICKNESS OF BOTH FORMATIONS
ARE SLIGHTLY EXAGGERATED

(Continued from Preceding Page)

5. Increase in severity of folds with depth.

6. Faulting south of the crest.

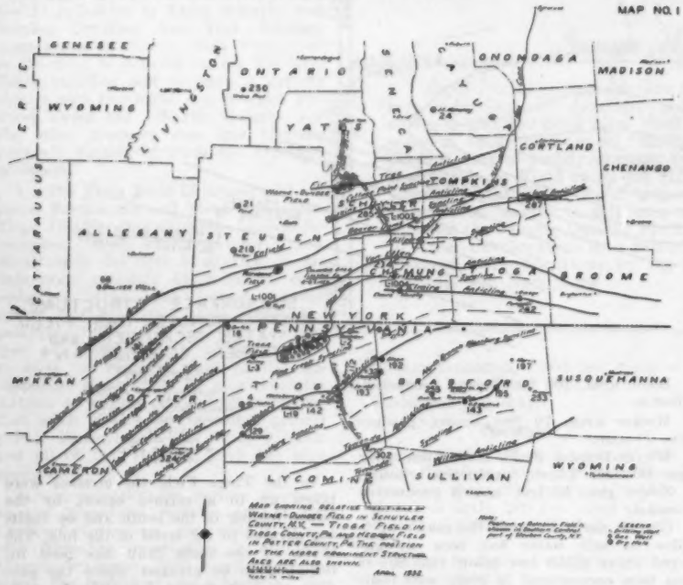
7. Steep south flanks and comparatively gentle north flanks of individual folds.

The logical assumption seems to be that the folds were produced by underthrusting, the stresses being carried in the basement complex and reflected in the sedimentary section by folding and faulting.

The Tioga structure may be regarded as an example of a faulted underthrust fold which increases in severity with depth. Similar subsurface structural features may be expected in fields developed in the potential natural gas areas of northern Pennsylvania and southern New York.

The occurrence of underthrust folding and faulting in the Appalachian was mentioned by Eugene A. Smith, who in his "Underthrust Folds and Faults," in 1893 briefly described such as being exemplified in certain Appalachian folds in Alabama. More recently Paul D. Torrey in his "Geology of the Gas Fields of New York," has suggested that the folds of the southern New York gas fields are of this type.

MAP NO. 1



Unit Plan for South Dome Kettleman Hills Negotiated by Secretary Wilbur

WASHINGTON, D. C., Aug. 8.—Preliminary steps have been taken by Ray Lyman Wilbur, Secretary of the Interior, to develop the South Dome of Kettleman Hills oil fields in California on the unit plan similar to that adopted for the North Dome.

The oil and gas value of the South Dome area has not been established, but to protect equities of the permittees, Secretary Wilbur has extended the co-operative permits to September 23, 1935. This action will insure the unitization of the field, it was explained.

The success of the unitization of North Dome has led to this action, the department says. After numerous negotiations the North Dome was brought under the unit plan, which means that oil and gas will be produced in the unified area only as it is needed. Prior to this action it would have been possible to drill a large number of wells and quantities of oil and gas would have been unnecessarily wasted.

When the unit plan was put into operation for the North Dome, it was estimated that gas sufficient to supply California for two generations would be saved instead of escaping into the air. The plan will mean that the oil and gas market will be undisturbed from this source, which if thrown upon the market indiscriminately would cause a surplus which might have paralyzed the industry.

The plan of the unit operation has been to operate the different areas by corporations established for the purpose. In the long run the field will produce twice the wealth that it would under competitive development where both gas and oil would be wasted. The proceeds will be divided among those interested in proportion to their holdings in acres. Gas is prevented from waste by the billions of cubic feet at the North Dome and oil is conserved and used only as the market demands it. The statement of the department in reference to South Dome negotiations follows:

Recent negotiations initiated by the Secretary of the Interior, Ray Lyman Wilbur, have resulted in an agreement with substantially all oil and gas permittees holding lands in the South Dome Kettleman Hills area, California, as preliminary to the unitization of this field if deposits of oil and gas are discovered.

This potential oil and gas area is in Kings and Kern Counties, California, in the same general area as the enormously rich North Dome Kettleman Hills oil and gas field, discovered in 1928, and now operated as a unit under a plan approved by the Secretary of the Interior. The South Dome is adjacent to the Middle Dome Kettleman Hills Field in which substantial deposits of oil and gas have recently been discovered, and this field is receiving consideration for development under a unit plan.

The oil and gas value of the South Dome area has not been established by drilling to discovery but in order to protect the equities of the permittees the secretary considered it expedient to extend the co-operating permits to September 23, 1935, and by such action to insure the unitization of the field under the law approved March 4, 1931, if oil and gas is discovered. In taking action Secretary Wilbur said: "I am confident that an equitable agreement can be worked out to the satisfaction of all co-operating parties."

ART SUMMERS DIES

A. D. (Art) Summers, scout and field man for the Carter Oil Co. with headquarters at Wichita, Kans., died suddenly at his home there August 3. Mr. Summers has been with the Carter Oil Co. 11 years and leaves a wife, Mrs. Minnie Summers.

L. W. Spring Did Much Research Work in Metals for the Petroleum Industry

LaVerne W. Spring, chief chemist and metallurgist for the Crane Co. and internationally known, whose death has evoked expressions of regret from many quarters, devoted much time and work to research and experiment in the development of metals capable of withstanding corrosion, erosion and high temperatures, and his contributions to the fund of knowledge in this field are given high place in the producing, refining and transporting branches of the oil industry.

Mr. Spring was active in the work of many technical organizations and their various committees. He was a member of the American Foundrymen's Association committees on cast iron, nonferrous metals, and malleable iron, and represented the association and the American Institute of Mining and Metallurgical Engineers on the advisory committee to the Bureau of Standards. He served on the advisory committee of the American Society for Testing Materials committee on steel, was chairman of the society's subcommittee on valves and fittings for high temperature service, was a member of its committees on cast iron, on malleable cast iron, on iron-chromium, iron-chromium-nickel and related alloys, on copper and copper alloys, cast and wrought, and was a member of the joint A.S.T.M.-A.S.M.E. committee on research on effect of temperature on the properties of metals. He was a member of the American Socley for Steel Treating, American Chemical Society, Institute of Metals (British) and the American Institute of Mining and Metallurgical Engineers.

Papers delivered by Mr. Spring before technical associations and articles prepared by him for publication in technical journals cover a wide range of subjects. In 1929 Mr. Spring and J. J. Kanter received jointly the Charles B. Dudley medal awarded by the American Society for Testing Materials following the presentation of a paper of "outstanding merit, constituting an original contribution on research in engineering materials." He was honored posthumously with the John A. Penton gold medal by the American Foundrymen's Association for distinguished service to the foundry industry. He was the author of the book "Nontechnical Chats on Iron and Steel," and of papers on "Effect of High Temperature on the Physical Properties of Some Alloys," "Metallurgy of Valve, Fitting and Piping Materials," "High Temperature Metals for the Power Plant" and many others. His "Considerations and Tests for Cast Materials for Cast High-temperature High-pressure Service" was the 1931 American Foundrymen's Association exchange paper for the Institute of British Foundrymen and was presented before the latter body's annual meeting in Birmingham, England.

Mr. Spring was born 56 years ago in Coldwater, Mich., and graduated with an A. B. in chemistry from the University of Michigan. He then entered the employ of the Illinois Steel Co., South Chicago, Ill., as a chemist. Later he served in a similar position with the Wolverine Portland Cement Co. Returning to the Illinois Steel Co., he did metallurgical and supervisory work in the plate mill. In 1906 Mr. Spring became a chemist for the Crane Co., Chicago. Later he was placed in charge of the laboratories and in 1914 he was made chief chemist and metallurgist, which position he held at the time of his death.

Mr. Spring's patience with young men and boys studying the profession of chemistry was proverbial. It was said of him that he would drop work in his laboratory at any time in order to explain some point that was troubling a learner. For years he had made a special study of the effects of corrosion, erosion and high temperatures in the oil industry and he conducted innumerable experiments in his search for the materials best designed to withstand the destructive work of these agencies. Among devices he perfected for use in his experiments was a machine by which he was able to test the effect of high temperature on a given material over a long period of time. It was his practice to make a tour of oil producing

LaVERNE W. SPRING

and refining areas each year in order to keep in touch with certain kinds of problems in these fields.

H. W. Gillett, who did much technical committee work with Mr. Spring, paid this tribute to him: "In all our many contacts with him we never once knew him to bow to expediency. When he took a position on any subject it was the position dictated by adherence to truth. No apparent temporary advantage that might have been gained for himself or his firm ever influenced him in his vote or his discussion on a committee matter. Only the facts and his own convictions could affect his position. He stood four-square."

H. F. SINCLAIR HONORED

LOS ANGELES, Calif., Aug. 6.—About 40 leading oil executives and bankers in the State were guests at a dinner at the California Club, tendered in honor of Harry F. Sinclair, chairman of the executive committee of the Consolidated Oil Corp. H. R. Gallagher, Consolidated Oil president and former California oil executive, was the host.

Among those present were: Daniel Pierce, Henry Lockhart, Jr., Charles S. Jones, William McDuffie, K. R. Kingsbury, George Legh-Jones, William Humphreys, Herbert Fleishhacker, Paul Shoup, W. R. Hearst, Walter Leimert, Harry Chandler, Chester Rude, J. R. Page, Victor Rossetti, Gurney Newlin, Paul Boggs, Will H. Hays, H. L. Dunnigan, R. W. Ragland, Sam Lee Haskins, John Brown, L. P. St. Clair, C. E. Olmsted, Alexander MacDonald, Jefferson Chandler, R. W. Millar, Alexander Macbeth, Henry Robinson, Leigh M. Battson, E. R. Tinker, Dr. A. P. Giannini, R. D. Matthews, P. H. O'Neil, Henry O'Melveney, George Cochran and William Valentine.

NASHVILLE GAS FRANCHISE

NASHVILLE, Tenn., Aug. 6.—The citizens of Nashville, by a vote of approximately 14,000 to 1,000, have voted a franchise to the Dickson County Oil & Gas Co. to bring natural gas into Nashville from its fields. The ordinance was introduced recently in the city council. It provides that if the Dickson company fails to furnish natural gas to Nashville or charges higher rates than those fixed that the company will pay 5 per cent of its gross receipts into the treasury of Nashville.

Reservoir and Bottom-Hole Producing Pressures As a Basis for the Proration of Crude Oil

By C. V. MILLIKAN
Amerada Petroleum Corp., Tulsa, Okla.*

Allocation of allowed production in a prorated field by the use of bottom-hole pressures is a method which is sound in theory. Thus far it has had limited application because the experience in correlating bottom-hole pressures with the depletion of wells or fields is not sufficient to interpret all the pressure changes. With additional data and more general knowledge of bottom-hole pressures their use in proration will probably become common.

Bottom-hole pressure is the pressure at or near the bottom of a well. It is usually determined at the face of the producing horizon. Bottom-hole pressure measured while the well is producing, may be called the bottom-hole producing pressure or bottom-hole flowing pressure. If the well has been shut in or shut down long enough for the pressure in the producing horizon within the drainage area of the well to equalize, it may be called the reservoir pressure.

The allowable production from a prorated field may be allocated to the individual wells or leases by three methods:

1. Bottom hole producing or flowing pressures.
(a) The potential capacity of a well to produce.
(b) A uniform differential pressure while producing at the allowed rate.
2. Reservoir pressures.
3. A combination of bottom-hole producing pressures and reservoir pressures.

In most prorated fields the allowed production is allocated to the individual wells or leases in proportion to their individual potentials. This method is based on the theory that there is a direct relationship between the permeability and the porosity of the reservoir. More directly stated it means that there is a direct relationship between the amount of oil in the reservoir and the rate at which it will move through the reservoir. While in general this relationship is true, it may vary considerably in different wells. Furthermore, in many wells the capacity of the reservoir to deliver oil to the well is greater than the capacity of the flow string to deliver oil to the surface. It is especially true where the potential is determined by flowing through tubing or by pumping. When potentials are established under such conditions the equity of the allowed production may be materially affected.

There are conditions under which it is undesirable to produce a well at its maximum rate, even for a short time. It may cause premature water intrusion, sanding up, or endanger cutting connections. If the wells have large potentials but the allowed production is small, additional equipment is required just for the purpose of taking potential tests. In many wells the flow string required for taking potential tests is not the size through which the well will flow most efficiently when it is producing at its allowed rate. For such wells the operator must choose between the more efficient method of producing, and accept the penalty of a lower potential, or stand the expense of changing equipment each time a potential test is taken. These conditions which affect the potential also affect the allowable and therefore the recovery.

Based on Sand Conditions

If relative potentials could be established on the basis of the sand conditions within the drainage area of the wells, it would eliminate inequities induced by flow strings, equipment or method of producing. If the theory of proration based on potential is correct, it would be more equitable to base the proration on the capacity of the sand to deliver fluid to the well than on a potential which might be affected by something other than the conditions within the producing formation. Bottom-hole producing pressures can be used to obtain the relative capacities of wells either by calculating the open flow or by determining the rate of production which will give a uniform differential pressure for all wells.

There is a relationship between the rate of production of a well and the differential pressure between the reservoir and the bottom of the hole. By determining the bottom-hole pressure at a few different low rates of flow, a curve can be drawn from which an open flow can be calculated.[1] This method is being successfully used to determine the open-flow capacities of gas wells,[2] but its application to oil wells may require considerations that are not necessary in gas wells. The calculated open flow of small oil wells may be reasonably close to the actual, but in larger wells in which the velocity of flow is high enough to set up turbulence, the calculated open flow may be higher than the actual. Various size flow strings and different gas-oil ratios will also cause variation of the calculated and actual open flow.

The differential pressure between the reservoir and the well causes the fluid to move from the reservoir to the well. The amount of fluid which will move at a given differential pressure is proportional to the permeability of the sand. Therefore, if each well is produced at the rate which will give the same differential as determined for all wells in the field, the relative capacities of the wells to produce would be established.[3] The uniform differential may be expressed either in actual pressure or in percentage of the reservoir pressure. The latter method is probably more equitable because the relationship between porosity and permeability is not equal in all parts of a field. A well which drains a more permeable sand would have a greater allowable than its equitable proportion, hence the reservoir pressure within its drainage area would decline more rapidly. If the allowable were based on the actual differential pressure, the pressure within the area drained by the well would continue to decline more rapidly than the field reservoir pressure, but if the percentage method were used the actual differential, and consequently the allowable, would be reduced. This would tend to maintain a more uniform reservoir pressure throughout the field.

Uniform Reservoir Pressures

Maintenance of uniform reservoir pressures is the most equitable method of prorating. If the reservoir pressure in a field is maintained uniform at all stages of depletion, there will be no migration of oil and gas from the drainage area of one well to that of another. At any stage in the life of the field each well will have withdrawn the same proportion of its recoverable reserves as any other well.

When allowed production is allocated on the basis of decline of reservoir pressure, some tentative distribution must be made. A method which considers the rate of production seems most logical. The tentative allocation, however, need not be established with the accuracy that is necessary when the proration is based on the capacity of the wells to produce. The allowable would be adjusted when the next set of closed-in pressures were taken. Wells which have a greater decline in reservoir pressure than the average in the field will have their allowed production correspondingly decreased while the allowed production of those in which the reservoir pressure has declined less than the average will be proportionately increased. These periodic adjustments will equalize the reservoir pressures of the various wells to the end that a uniform decline of the reservoir pressure in the field will be maintained. When the field is exhausted each well will have produced the same proportion of the original oil and gas content in the reservoir within the drainage area of the well as the total recovery of the field is of the total original oil and gas content of the field.

It is indeed a good method of proration which can be put into practice without some question of its equity or practicability. Allocation of production on the basis of bottom-hole and reservoir pressures seems in general the most equitable, but it also may have the most difficulties to overcome in practical application. Some of the problems may be solved easily while others may require experimental work and careful study.

In fields in which there is a gas area or high gas-oil ratio area in the high part of the producing horizon or zone, the pressure decline will probably be more rapid than the actual proportional withdrawal of oil. The pressure-recovery relationship is dependent on the reduction of actual cubical contents in the reservoir, whether it be free gas, oil or water. In areas where the gas-oil ratio is high, the decline in reservoir pressure per barrel of oil is greater than where the gas-oil ratio is low, because the content of the reservoir is reduced by the absolute volume of free gas, in addition to the amount of oil. In such wells the allowed production of oil would be reduced in the high gas-oil ratio wells. The net result would be that the allowed production would be based on the cubical contents of the reservoir withdrawn rather than the amount of oil only. It would go far to conserve gas, especially free gas, in a field.

Natural Water Flooding

Fields in which there is encroaching water have a problem of a different type and one which involves the question of what amount of oil a well located on the edge of a field is entitled to produce. As oil and gas is withdrawn from the central part of the field and pressure is reduced, water moves toward the lower pressure area. The in-moving water replaces some of the oil and gas that has been withdrawn, and the pressure in the reservoir is thereby partially maintained. The pressure is maintained highest near the encroaching water. On the next adjustment, wells nearer the water would have an increase in allowed production while wells farther from the water would have an increase in allowed production while wells farther from the water would have a decreased allowable. The method could be carried so far that the wells farthest from encroaching water would be almost shut in and the oil would be produced from the wells nearest the water. When the flood approached the wells which were originally farthest from the encroaching water the pressure and therefore the allowed production would be increased.

While such a proration method may result in some apparent inequities in favor of the edge leases when encroaching water is present, it is probable that in the end there would be a greater recovery from the field. It is generally recognized that a slow, even moving water flood would recover more oil from the sand than a fast moving water flood. The only advantage that the edge wells would have eventually would be to obtain their recoverable oil earlier than the wells nearer the central part of the pool.

A condition which may cause difficulties in some fields is the high rate at which reservoir pressures equalize Rate of equalization will depend on the permeability of the sand, distance between wells, and the pressure differential created. For a high rate of production, wells could be spaced closer without inequities than for a lower rate. For a given rate of production wells could be spaced closer in a tight sand than in a more permeable sand. When the well spacing is close and the rate of production too high, pressures between adjacent wells may equalize even when the difference in the pressure is less than the probable error of the determined pressure. The present instruments will measure pressure with less probable error than the variations which may actually occur at the bottom of a well, even when every precaution may be taken to prevent irregularities.

At present the Yates Field in Pecos County, Texas, is the only one which considers the pressure in the reservoir or at the bottom of the wells in its proration plan. In that field, potentials of the wells which were taken originally by open flow are adjusted at intervals as the reservoir pressures change. Even though there may be some question of the mathematical equity of proration methods based on bottom-hole pressures, they would probably be as equitable as most of the methods which are being used at present, and no doubt better than some of them. With some further experience in interpreting bottom-hole pressures they promise to be an equitable and practicable method of allocating allowed production in prorated fields.

*Before Los Angeles meeting A.I.M.E., July 28.

[1] Millikan, C. V., and Sidwell, Carroll V., "Bottom-Hole Pressures in Oil Wells," Transactions, A.I.M.E., Petroleum Division, 1931, p. 199. Also, Nix, Dale, "Determination and Application of Depth Pressures in the Yates Field," Transactions, A.I.M.E., Petroleum Division, 1932, p. 356.

[2] Pierce, H. R., and Rawlins, E. L., "The Study of a Fundamental Basis for Controlling and Gauging Natural Gas Wells," U. S. Bureau of Mines, Reports of Investigations, Serial 2,930, May, 1929.

[3] Wilde, E. D., Jr., and More, T. W., "A Method of Determining Production Allowances in Prorated Fields," American Petroleum Institute, Proceedings, First Mid-Year Meeting, Division of Production.

HUGHES TOOL GETS DECREE

The Hughes Tool Co. of Houston, Tex., has been granted a decree by the Federal District Court for the northern district of Oklahoma, levying damages in the sum of $37,880.27 for infringement of the patents owned by Hughes Tool Co., covering rock bit cones made by the former Empire Steel Products Co. and the U. S. Tool Co., and sold in Oklahoma in infringement of U. S. patent No. 1,320,384. This decree is supplementary to the decree heretofore granted declaring infringement and an injunction against further manufacture, use or sale of the infringing cones.

TO INCREASE TAX IN CUBA

A bill has been presented in the Cuban house proposing an increase of 1½ cents a gallon in the tax on gasoline, and a reduction in the tax on automobiles, trucks and buses.

Principles of Straight Hole Drilling Get Official Recognition in Order of Texas Commission

By L. G. E. BIGNELL
Petroleum Engineering Editor

When the Texas Railroad Commission issued its order on June 25 specifying that drilled holes in the Conroe Field, Montgomery County, Texas, must be checked at intervals of not more than 500 feet each they established a precedent in the oil industry which indicates that recognition is taken of work done by petroleum engineers and production men to correct the evils of the older practices of hasty drilling of wells and the use of improper methods which resulted in the holes being completed at some distance from the point at which they were started. Back in 1928 it was recognized by nearly every one in the production end of the industry that holes had been drilled that were very crooked and as a result of such practice many detrimental conditions were introduced into the production of these wells.

The commission's order states that surveys of the holes shall be made at intervals of not more than 500 feet under the supervision of the commission's field men and no hole on a 20-acre spacing shall deflect more than 5 degrees from the vertical. For holes on tracts of from 10 to 20 acres the declination shall not be more than 4 degrees from the vertical and on smaller tracts the holes shall not be off more than 3 degrees.

Well Spacing

The order further specifies that the development of the Conroe Field shall be based on the maximum of one well to each 20 acres and no location will be permitted within 933 feet of another nor within 466 feet of a property line. This order is so worded as to prevent evasion or the cutting up of acreage into smaller tracts for the purpose of increased drilling.

Having limited the well spacing in this field at the surface it is only logical for the commission to issue the second rule that requires that the holes shall be reasonably straight and in this way also limit the area in which the bottom of the hole shall be completed. These combined orders will prevent, to a large extent, drainage of offset acreage, limit the number of wells required for the field and result in better production conditions.

This is a well-earned recognition of principles long advocated by competent engineers, production men and drilling contractors, and it may well be applied to other new fields early in their development life. Many of the larger companies and individual operators have been specifying the maximum degree of declination permissible in rotary drilled wells and have inserted in their drilling contracts a clause that permitted their representatives to make a survey of a drilling well at any time to check its verticality. It if was found to have deviated from the vertical more than the specified allowable it was necessary for the contractor to plug back to the point where the deviation started and redrill the hole in the manner prescribed in the contract.

Benefits Will Be Large

Now that a legally authorized body of an oil producing state has officially recognized the principle of straight hole drilling they are at the same time recognizing property rights of surface owners of land in an oil field. Crooked holes in the past have undoubtedly drained areas not under the property upon which the top of the hole was located, and this practice cannot be justified.

With deeper drilling even a small declination from the vertical will result in the holes bottoming on adjacent property even where the well is started in the center of a 10-acre lease. To avoid such a condition in the Conroe Field the commission has taken into account in their order the depth of the wells and the maximum amount of declination for the various well spacing, that will insure that the hole is completed within the boundaries of the tract upon which it is started. The producing horizon in the Conroe Field is found at about 5,200 feet.

Out of this order will result many advantages to everyone concerned. Twist-offs of drill pipe and difficult fishing jobs in crooked holes will be avoided by the drilling contractor. This will automatically eliminate loss of drilling time on account of such troubles and cost of sidetracking jobs which were not uncommon where the old practice of hasty and crooked drilling was followed.

When the hole is drilled straight it will be much easier to run casing and cement it. With the casing more nearly in the center of the drilled hole the distribution of cement around it will be much more uniform and give better protection to both the drill hole and the casing.

As a straight hole is shorter than a crooked one there will be less time required to complete and less casing needed to line it. With the straight holes there will be a less number of abandonments because of drilling troubles and a direct saving to the contractor by the elimination of cost of skidding the rig and drilling a second hole.

For the production man there will be many advantages gained in operating conditions. When the wells are pumped there will be less wear on sucker rods and tubing, fewer shutdowns for repairs, and lowering of power requirements due to elimination of high friction between rods and tubing common to crooked holes.

For the geologist and petroleum engineer there will be direct benefit in the possibility to secure good cores or samples of the various horizons to be tested. The casing points can be more accurately determined and the completion of the wells can be more accurately planned to give maximum sand exposures and the best conditions at the bottom of the hole.

Straight Hole Drilling

While much has been written about straight and crooked holes, it might be well to again cite some instances of bad practice brought about by neglect to follow well-known principles laid down some time ago by an A.P.I. committee who made a special study of straight hole practice. Their recommendations for drilling straight holes have been summarized as follows:

1. A vertical start.
2. Light weight on the bit.
3. Proper type of bit.
4. Moderate rate of circulation.
5. Mud sufficiently heavy to minimize washing and to insure prompt removal of cuttings from face of hole.
6. Concentration of weight adjacent to the bit.
7. Use of oversize or stiffened drill stem immediately above the bit.
8. Use of guides to center drill pipe on hole.
9. Avoidance of ratholing or other unnecessary change in size of hole.

All of the above recommendations are now more or less common practice of drilling crews, but in addition to following these rules it cannot be emphasized too strongly that frequent check of actual conditions in the hole will aid materially in securing the desired results and keeping the hole plumb.

The development of surveying instruments to carry on this checking has been very definite and excellent results have been obtained. There are many types of surveying instruments on the market at this time. They can be divided into two general classes, those that determine deviation from vertical only and those that indicate both deviation and direction.

The instruments which show deviation alone may be divided into two general types: (a) those which use a liquid that

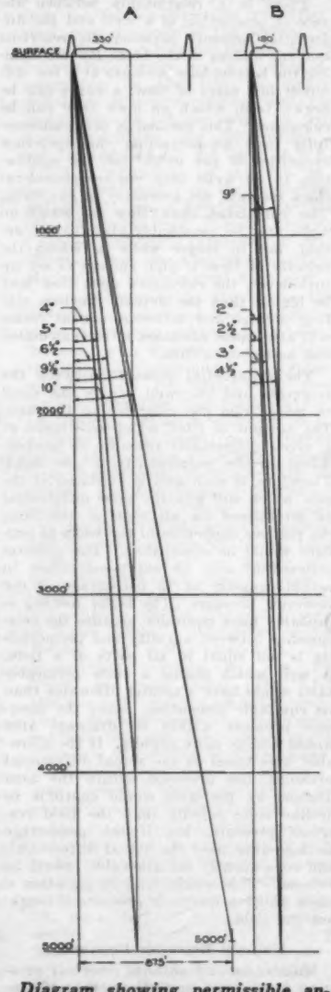


Diagram showing permissible angles of deviation from the vertical in wells drilled as deep as 5,000 feet. "A" shows two wells 660 feet apart, and "B," two wells 300 feet apart, on the surface. From Dr. Frederic H. Lahee's paper, "Problem of Crooked Holes," A.A.P.G. Bulletin, September, 1929

either (1) solidifies about a plumb bob or needle, (2) etches a line on the container, (3) completes an electrical circuit, or (4) carries a level bubble; and (b) those which use one or more pendulums which record the deviation from the vertical by making a trace upon a disc, a paper chart, or whose position is recorded on one or more photographic films. Of the type first mentioned, those employing liquids, the acid bottle is by far the most common.

With a wide range of instruments to select from, all adapted to easy running and checking of the conditions in the drill hole at any time, there is no excuse for crooked holes. The use of these instruments have proved their economical worth and their increased use would be further beneficial. In particular it may be mentioned that the Sperry-Sun Co.'s "Syfo" surveying instrument has proved itself well adapted to bore hole surveying. The record secured by the use of this instrument is made on paper and is easily read and the series of daily runs can be filed so that a complete record of the hole is obtained. The instrument can be run inside of the drill stem on a line or dropped into the hole by the "go-devil" method.

Deviation in Drilling

The accompanying diagram is taken from an article prepared by Dr. Frederic H. Lahee, chief geologist, Sun Oil Co., Dallas, Tex., and published in the September, 1929, Bulletin of the A.A.P.G. as part of an article prepared by him on "Problems of Crooked Holes." The data submitted in this article were secured from geologists and engineers in answer to circular letters sent out by Doctor Lahee as chairman of the committee for the study of the crooked hole problem for the A.A.P.G. acting in conjunction with the A.P.I. drilling practice committee.

The paper contains a fund of valuable information on this subject and the use of these data together with suggestions submitted by the A.P.I. committee has made it possible to reduce crooked hole troubles to a minimum, or perhaps better has led to the drilling of comparatively straight holes in all recently developed fields where operators have had any desire to profit by this information.

A study of the drawing will present a picture of conditions that might occur in the Conroe Field if the Railroad Commission's orders had not been issued. In making the drawing it was assumed that all of the deviation is in the same vertical plane, and that, in each case, the angle of deviation is constant between the given depths. These assumptions give figures which are extremes, probably at least 25 per cent greater than under ordinary drilling conditions. However, the drawing does show what various angle of drift mean in wells drilled to 5,000 feet and the pay zone in Conroe Field is at about 5,200 feet so it is applicable to conditions there.

In his article, written in the late summer of 1929, Doctor Lahee said:

"In conclusion, we would emphasize this fact, that whether the immediate effects of crooked holes are excess of footage drilled, or twist-offs, fishing jobs, and other adversities in drilling, or wear and loss in pumping and other producing operations, or misinterpretations, of geological data, or erroneous results in production engineering problems, the final consequence is financial loss. And the difficulties and the losses will be greater the deeper we drill for oil.

"It is true that some holes have been shown by proper surveying to be vertical. But at present such holes are rare. We must learn how to drill vertical and how best to bring holes back into their proper position when they are not vertical and we must improve the accuracy of our subsurface information by securing correct surveys of the underground courses of holes and by establishing the correct orientation of cores from these holes."

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United States Accelerated Aging Apparatus for Determination of Gum in Motor Gasoline

By B. P. WARD
Lieutenant, U. S. Navy

Because of the increased use and the necessity for better quality of gasoline by naval aviation activities in the past few years and because of the advent of vapor phase and cracked gasolines into the field of aviation fuels, it became necessary for the U. S. Naval Engineering Experiment Station at Annapolis, Md., to adopt or devise a method of gum determination by accelerated aging in order to preclude the necessity of waiting for several months before the gum content of a gasoline in storage could be ascertained. The acceptance tests of all gasolines for naval aircraft are made at that station.

In January, 1930, E. B. Hunn, H. G. M. Fischer, and A. J. Blackwood published an article on "Gum in Gasoline" in which they briefly described an apparatus for measuring stability of cracked gasolines toward oxygen. That scheme was investigated, developed, and adopted by the engineering experiment station as its standard method of accelerated aging of gasoline. It eliminated the unsatisfactory 90-day storage period and speeded up the results of the tests as to acceptability, thus enabling the Navy Department to place contracts for aviation fuel without delay.

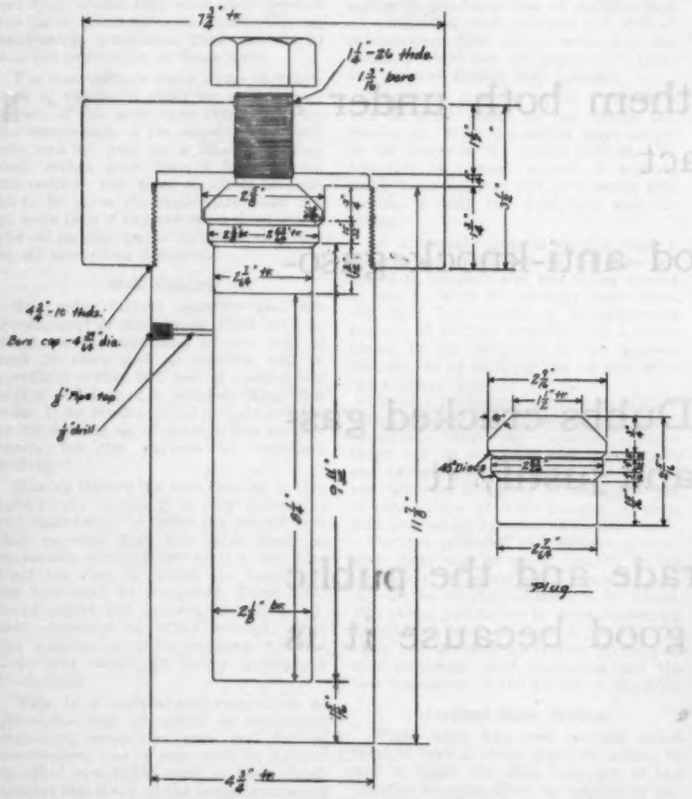


Figure 1. Detailed drawing of stainless steel bomb for accelerating aging of gasoline

Aging Apparatus

The accelerated aging apparatus was designed and built at the engineering experiment station. It consists of the following parts:

1. Stainless steel bomb;
2. Water jacket with steam coil and cover;
3. Water line;
4. Steam line;
5. Vapor exhaust line;
6. Recording pressure gauge;
7. Oxygen bottle;
8. Oxygen supply line;
9. Oxygen control valve; and
10. Oxygen relief valve.

A detailed drawing of the bomb is shown in Figure 1. The complete set up of four bombs arranged for simultaneous tests is shown in Figure 2. The apparatus is designed to accommodate two additional bombs when they are needed. The bomb consists of four parts, all of which are made of stainless steel. The four parts are the cylindrical sample chamber, the plug, the cap, and the locking cap bolt. The dimensions are given on the drawing. The bomb weighs 75 pounds. It has been tested under 10,000 pounds per square inch hydrostatic pressure and showed no indication of leakage or distortion.

Permanently Installed

The apparatus is now a part of the regular equipment of the experiment station. It is permanently installed and all connections, including pipe connections, are permanently made. In the development of the apparatus many difficulties were encountered such as those due to leakage and corrosion of the bomb. With the plug resting on a single seat in the bomb, there was generally a small amount of leakage of oxygen past the plug. That leakage was stopped by machining two seats in the bomb, as shown in Figure 1, and by grinding the plug to the seats. The use of needle valves in the oxygen line permits accurate control of oxygen pressure. The bomb was made originally of Class B steel. Rapid corrosion resulting from the attack of oxygn rendered the bomb unserviceable within a very short time. The use of stainless steel was adopted and it has eliminated that difficulty. The possibility of oxygen leakage is definitely limited to the plug of the bomb. Absolute cleanliness of the plug and seats, when assembling, completely insures against leakage and incidental loss of time when preparing for tests. The only manual labor required in operating the apparatus consists of placing the sample of gasoline in the bomb, introducing the oxygen, filling the jacket with water, opening the valve to the steam coils, and putting the jacket cover in place. One man can perform these operations and have a test underway in the space of 10 minutes.

No Accidents or Loss of Time

The experiment station has used the bombs in tests of several hundred gasolines in the past year and a half without accident or loss of time due to leakage. Oxygen bottles are used only after the pressure within the bottle has been reduced to 250 pounds per square inch. The rigid construction of the bomb, the small volume of oxygen it contains when filled, the relief valve, and the limited pressure in the oxygen bottle are factors which safeguard against danger of explosion. In its finished condition it is a quick, safe, and reliable instrument for accelerated aging of gasoline.

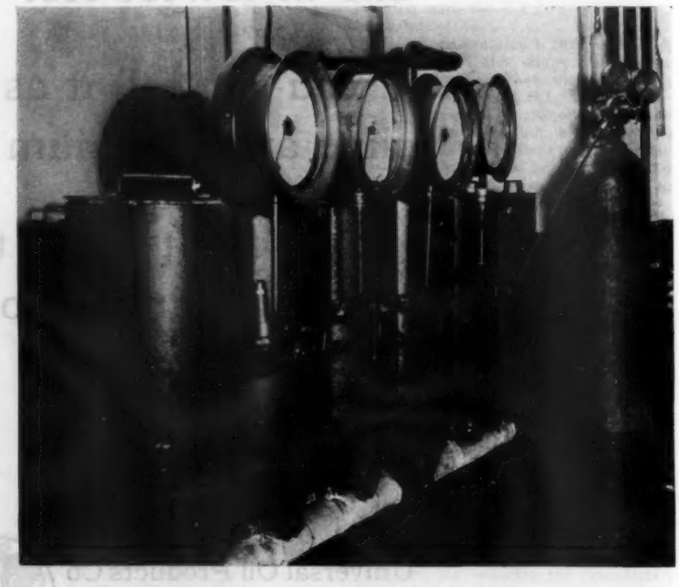


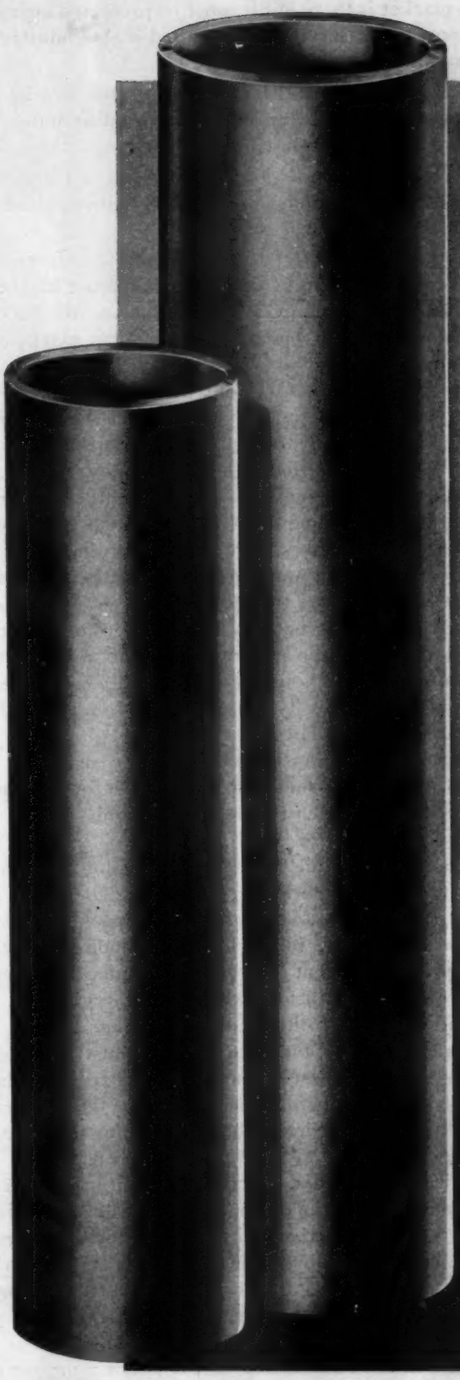
Figure 2. Four bombs arranged for simultaneous tests

The conduct of the accelerated oxidation test is as follows: An 8-ounce glass bottle filled with gasoline to be tested is covered with a loose glass cover to prevent ingress of dirt, then enclosed in the bomb, the apparatus and contents being at room temperature. The bomb is then twice filled with oxygen at 100 pounds per square inch gauge pressure and the pressure released through a discharging valve in the oxygen supply line to flush out air entrapped in the bomb. Analyses have shown that all entrapped air is completely removed by this method. The bomb is charged then with oxygen at 100 pounds pressure for a third time, after which the charging valve is closed. The steam jacket is filled with fresh water and steam turned on the coils. The temperature of the bath is raised to 210-12° F. and held for four hours. The period of oxidation begins when the temperature of the gasoline has reached its maximum as indicated by the pressure recorded on the gauge. The heat applied to the bomb increases the oxygen pressure to about 130 pounds per square inch. The stability of the gasoline is noted on the recording gauge. Any appreciable diminution of the pressure during the four-hour run is indicative of gum formation. No leakage of oxygen from this bomb has ever been detected. After the run, the bomb is rapidly cooled with water while the charging valve is still closed. The pressure is released and the sample removed. The contents of the bottle are drained and measured and the usual test for gum is made. The results are expressed in milligrams per 100 c.c. of gasoline.

Results of Tests

The results of the bomb tests indicate a very pronounced relationship between accelerated aging and long time storage of straight gasolines. To ascertain a comparison of accelerated aging results and those obtained by 90-day storage, tests were run on several gasolines. The results of 12 tests are given in the table. The gum contents determined after the two procedures were very close.

Gasoline No.	Ordinary test not accelerated Gum—milligrams When received	Ordinary test not accelerated Gum—milligrams After 90-day storage	Four-hour accelerated aging test Gum milligrams
1	none	3.0	4.2
2	none	none	3.0
3	none	none	none
4	none	2.5	1.8
5	none	none	1.5
6	1.0	2.0	3.0
7	none	none	1.0
8	none	1.3	none
9	none	none	none
10	none	none	1.8
11	none	2.0	4.0
12	none	2.2	3.4



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"Stop Thief!"

When the suggestion was made in these columns that the oil industry was in special position to lead the way to recovery some pessimistic critics treated it as an untimely jest. But the suggestion has become a reality.

The much criticized advance in crude prices last April paved the path from the red to black as proved by the financial reports of oil companies for the second quarter. Deficits of last year running into millions have been displaced by earnings, and dividends that were in doubt have been continued, thanks to operations at a profit instead of at a loss.

Rising commodity prices have followed the example of oil, reviving hope and encouraging confidence, reflected in the market for bonds and securities and a complete reversal of popular psychology from abandonment and despair to renewed faith and enterprise.

Events are surely demonstrating the soundness of the argument that the way out of depression is by maintaining or increasing prices rather than panic-creating sales below cost.

But the question is still being asked, can oil prices be maintained?

It is being asked so insistently and persistently by men who should know the facts that there is evidently danger of the industry falling prey to an illusion that may bring disaster.

The gasoline market is not being maintained as it should be, and must be if crude prices are to be upheld.

Yet official crude production is being held down. What is the answer?

Is it to be found in excess production; in, say, Oklahoma City and East Texas, as is freely reported?

Is "stolen" production, produced in violation of the law, finding a ready market at under the regular price, the explanation of the paradox of a weak gasoline market and officially curtailed crude production?

But, if it is, it proves something more. It proves that there is a larger market for crude than official curtailment provides for.

That is, if this "stolen" production could be stopped, there would be that much more market for legitimate production.

An addition of 100,000 barrels daily to normal demand at the regular price would establish the market beyond question, if "stealing" was stopped.

If there is any question about the maintenance of the present crude price it is not because of lack of demand but because of conditions that should not be tolerated.

The market is there but it must be protected against illegal raiders whose operations surely can be halted if the industry honestly determines to stop them.

There is no lack of state authority that can be invoked to stop illegal production and transportation of oil in defiance of the regulations of the conservation commissions.

The Railroad Commission of Texas has ordered sworn reports on the movement of all oil which, strictly enforced, should provide an absolute check on illegal production.

If there is a lack of official personnel to enforce the order the oil men have enough at stake to justify rendering all the aid required.

Every producer, big or little, who realizes the necessity for honest curtailment, should co-operate to the fullest extent until "stolen" oil becomes impossible.

There is a market for from perhaps 100,000 to 150,000 barrels daily reported being supplied with crude below the market price which, with "stealing" stopped, would be open to all at a fair price.

But that is not all that is lost to the law-abiding producers. The "bootlegging" of "stolen" crude supplies the raw material for the wreckers of the gasoline market upon which the crude price rests.

Such a situation gives point to the warnings that the crude price is in danger. It should not require an actual cut to show the peril of the situation and arouse the industry—too late to save the market.

The oil business is not any different from any other business in having its share of the unscrupulous who think it smart to cheat. Civilization is yet too young to have totally eradicated jungle habits. But that is no reason why the enlightened majority should submit to jungle methods, since laws provide a means for their suppression.

Oil men are notoriously tolerant. They share the national laxity that too often has a sneaking admiration for the clever crook. As a people we too frequently smile at a fraud—until it comes directly home to us.

That is how this oil "stealing" is coming straight home to the industry today. It is no longer something to gossip good-naturedly about but a direct attack on the personal pocketbook.

The crude increase in April put the industry back on a paying basis, despite a 5 per cent decrease in consumption, because it stopped the folly of selling at a loss which was carrying the whole country deeper and deeper into the pit of depression.

By making a stand on price the oil industry found a foothold to climb out just as the rest of the country is trying today.

The question now before the oil industry is whether it is going to give up all it has gained and slump back into the mire because it has not courage enough to tackle an ugly problem.

There is ample demand for crude to justify the present price if that demand is kept in legitimate channels. Of course, if it is allowed to be stolen by bootleggers the legitimate channels will have that much less of the market to supply. There will also be the further effect that cheap gasoline from bootleg crude will inevitably bring down the whole gasoline market and with it the present crude price.

These are facts that cannot be reiterated too often to bring home to everyone in the oil industry that it is not a matter of smirking at someone "getting away with it" but whose stuff they are getting away with.

We may laugh at the confidence man selling a "gold brick" to the gullible visitor, since we know too much to buy gold bricks, but if the victim had paid for the brick with our money it would not seem so funny.

"Stolen" oil is not alone stolen oil but stolen markets, stolen prices, stolen profit. It comes right home to all of us and demands attention.

Midway in the main gasoline consuming season, that has been reasonably profitable so far, the industry cannot afford to take the risk of a smash that will undo all that has been accomplished since the first of April.

The demand is here if we see that it is legitimately supplied.

Where CAST COUPLINGS JOIN CAST IRON PIPE

Style 53

When you lay cast-iron pipe, use the joints you *know* to be permanently tight—that will last as long as the pipe itself. Use the joint that is *successfully* holding pressures on more than 100,000 miles of line pipe. Use tried and proved gaskets that have been specially developed and constantly *improved* over a period of 41 years for your kind of service. Use Dresser Couplings.

Dresser Cast Couplings, Style 53, are furnished for all sizes of plain-end cast-iron pipe up to and including 30-inch. Lightweight flanges are made of high-tensile alloy cast metal; bolts are either galvanized or cadmium plated. *Write for literature.*

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DRESSER COUPLINGS DOMINATE

Furnace Oils Continue Rapid Advance in Group 3 Market With Higher Prices for Other Fuels

By C. O. WILLSON

All refinery cuts which can be used as furnace oils or tractor fuels experienced a rapid advance in the Oklahoma (Group 3) market during the past week. These products, which vary in specifications from high gravity residual fuels to prime white distillates, have been strong for several weeks and a slow advance during that period was climaxed during the past few days with what might be termed a sensational rise.

Furnace oil buyers who have been unable to secure the quantity of material needed from refiners to start the burning season, which in some parts of the country is less than a month away, were actively bidding for spot material and advanced tank car quotations from one-eighth to three-eighths cents per gallon. Buyers were willing to pay 2½ cents for the 38-40 straw distillate the first of the week and the 32-36, zero, low flash grade which also is active was selling over a price range of 2⅛ to 2¼ cents. Sales of the prime white distillates, which are used as tractor fuels as well as furnace oils, were quoted at a low of 2⅝ cents. The high gravity fuels of low cold test, which are used as special fuels, were up from 2½ to 7½ cents per barrel.

Minor changes were reported in other products. The price range on 41-43 water white kerosene was 2¾ to 3 cents, which was the same low as was quoted last week. The 42-44 grade was scarce and advanced to a low of 3 cents. Due to the strength shown in distillates, it was predicted in the trade that the 41-43 water white grade would advance to a low of 3 cents before the end of the week.

Refinery gasolines again rallied after giving indications last week of a serious break. As has been the case several times over the past few weeks, price concessions by a few sellers in Oklahoma and other Mid-Continent areas was brought about by a slow spot demand and prices slipped for a few days last week. The lower prices attracted sufficient buying to remove the material offered and on Monday and Tuesday gasolines were stronger again so that in sales to the trade the same prices are in effect as those published in last week's issue.

The improvement in refinery gasolines was brought about by a steady demand on the part of jobbers. The refinery buying support which characterized the advance in the tank car market earlier in the year, has not been a factor in Oklahoma during the summer months, and this fact has encouraged many of the trade to believe no substantial decline in prices is to be expected with prices on a firmer basis than they were earlier in the year. There is still some inter-refinery buying, but this is to cover actual needs and not for the purpose of preventing excess material being thrown on the market at distress prices. Many of the trade do not look with favor on the more or less altruistic efforts of a few refiners to prevent price declines by reducing their own operations or storing in order to be able to make purchases from other refiners who have material which they are constantly forcing on the spot market regardless of whether there is ready demand or not. The net result of this policy in the past has been to encourage continued overproduction on the part of those who do not have adequate marketing outlets with no compensating advantages to those operators who are in position to market their own plant output in an orderly manner. The opposite policy which is now being followed is to permit those with excess gasolines to sell at low quotations with the expectation that the unprofitable prices will correct the conditions for which relatively few refiners are responsible.

Consider Import Situation

Market students are giving consideration to a possible development which would have significance in the Mid-Continent gasoline market generally. This has to do with the shutting off of gasoline imports through the excise tax of 2½ cents, which became effective June 21. This tax so far has been very effective in stopping importations of gasoline and it is reasonable to assume that this condition will continue, for it is improbable

Refined Market Barometer

Price changes in refined markets over the past week were largely dominated by local conditions. Refinery gasoline price changes were of minor importance with all areas reporting a heavy consumption. The gasoline tank car market is still unsettled in some sections and concern is expressed by sellers regarding the probable market trend after the close of the month. Burning oils, particularly the furnace oil grades, in sections where they are used as household fuels are active and in the Middle West and Mid-Continent quotations advanced rapidly. No changes in kerosene. Improvement expected in industrial and marine fuels. Price cutting in retail sales continues to be reflected in unsettled demand for lubricating oils. Routine demand for wax.

Mid-Continent—Furnace oils and gas oils strongest products in refinery list. Demand for gasoline sufficient to prevent price declines. Natural gasoline demand fair. Heavy fuels of low cold test more active.

East Coast—Gasoline market disturbed by price cutting in retail sales. Kerosene demand improves. Bunker fuels steady. Less demand for lubs. Furnace oils active. No change in export prices or demand.

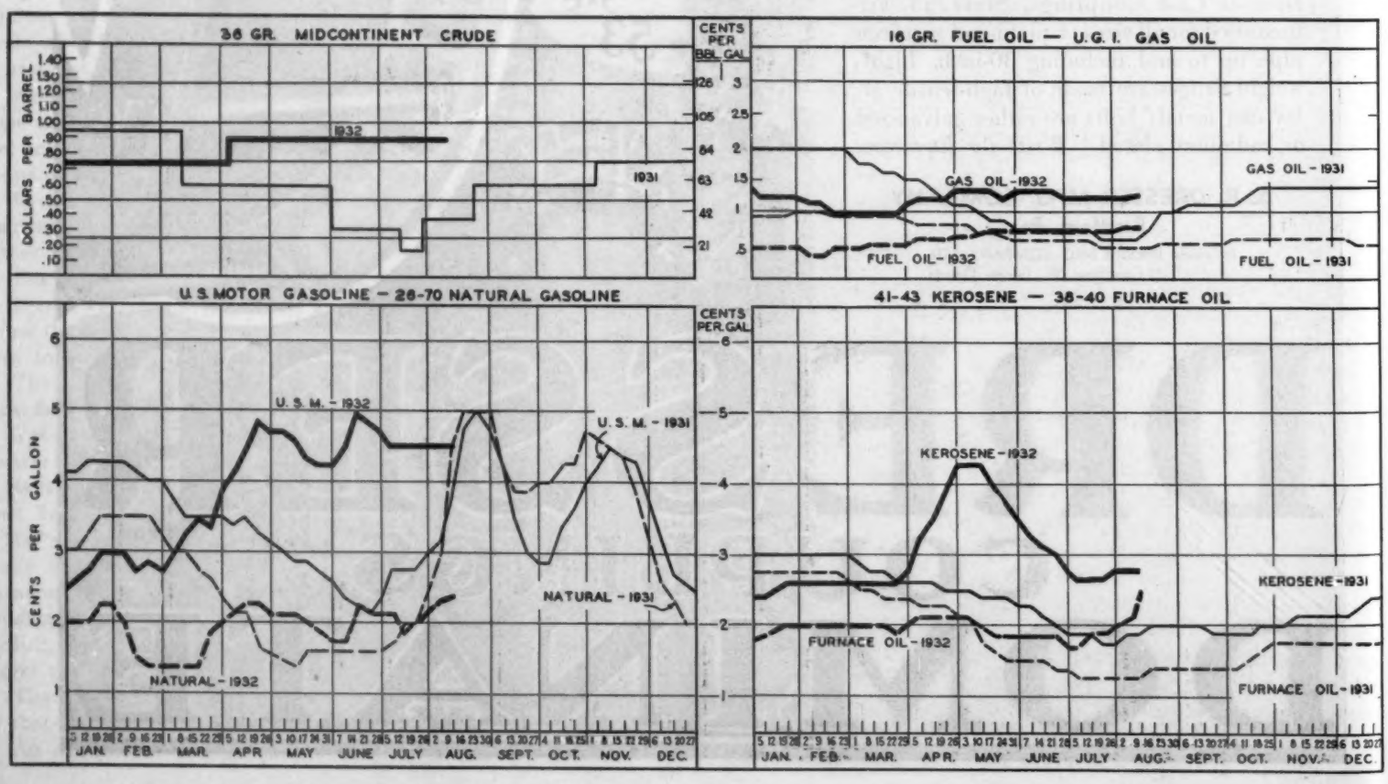
Pennsylvania—Less demand for cylinder stocks and neutral oils. Kerosene prices lower. Gasoline prices unchanged.

California—Good movement of gasoline and prices higher on some grades. Other products unchanged.

Gulf Coast—Gasoline demand slow. Heavy fuels and kerosene firm. Lubricating oils quiet.

Chicago—Heavy fuels and burning oils active and prices generally higher. Gasoline weak.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)


36 GR. MIDCONTINENT CRUDE
DOLLARS PER BARREL
1932
1931
CENTS PER BBL. GAL
16 GR. FUEL OIL — U.G.I. GAS OIL
GAS OIL - 1932
GAS OIL - 1931
FUEL OIL - 1932
FUEL OIL - 1931
U.S. MOTOR GASOLINE — 28-70 NATURAL GASOLINE
CENTS PER GALLON
U.S.M. - 1932
U.S.M. - 1931
NATURAL - 1931
NATURAL - 1932
41-43 KEROSENE — 38-40 FURNACE OIL
CENTS PER GAL.
KEROSENE - 1932
KEROSENE - 1931
FURNACE OIL - 1932
FURNACE OIL - 1931
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

that any marketer can absorb the 2½ cents and compete in the domestic market.

Previous to the effective date of the tax, importing companies brought in large quantities of gasoline which was stored at bulk terminals. These supplies have not been exhausted, but there was evidence last week that a few companies are reaching the point where they will have to offset the lack of imported material with domestic purchases. One East Texas refiner is reported to have closed a contract by which part of his gasoline output will move to a Gulf Coast terminal and there shipped by boat to an East Coast distributor. It is known that several of the independent coastal distributors have made inquiries of Texas and Louisiana refiners for gasoline formerly obtained from East Coast refiners or imported.

Government reports show that imports of gasoline the first five months of this year totaled 6,425,000 bbls. an increase of 7.5 per cent over the same period of last year. These imports are small when compared with the 163,491,000-bbl. domestic production of refinery gasoline the first five months of this year. However, some observers feel that this shifting of over 1,000,000 bbls. a month from imports to the domestic market may take up the slack which threatens to upset the market over the next several months.

These observers also point to the effect of the one-half cent per gallon import tax on crude oil and other petroleum products. Imports of crude oil which were refined at plants in this country totaled 24,375,000 bbls. the first five months of this year, an increase when compared with the 21,531,000 bbls. for the first five months of last year. As in the case of gasoline importers rushed large shipments to this country before the effective date of the tax and with this material on hand it is too early to determine what influence it will have on the domestic demand for crude oil. Those who are optimistic regarding the importance of the import taxes believe that shortly the tax on crude oil will bring an additional demand for domestic crudes totaling at least 100,000 bbls. daily. This additional demand is needed as much in the crude oil end as the gasoline is in the motor fuel market. There are weak spots in the domestic crude market and with the seasonal decline in consumption during the fall and winter months, an additional 100,000-bbl. outlet for domestic crudes would serve a useful purpose.

Other market students are not so optimistic regarding the market significance of the import development although some are hopeful that it will prove of temporary benefit. They feel that the shutting out of imports will be offset by a decline in exports. Gasoline exports for the first five months of this year totaled 17,052,000 bbls. or almost three times the imports for the same period. It is known that the largest importers expect to shift their domestic and foreign refinery operations so that they will be able to supply the gasoline previously exported from this country from their foreign units. If this plan is carried out 100 per cent it will mean that every gallon of foreign gasoline shut out of this country will be offset with a reduction of one gallon in imports so that the situation in the domestic market will not be improved. The same situation applies to the importation of crude oil and refinery products.

The drawback provision of the Federal Revenue Act which permits importers under certain conditions to bring in crude oil and refine it at their plants and then export the refinery products is another angle to this problem, the full significance of which will not be known for several weeks. In regard to the Mid-Continent gasoline market it is also pointed out that California refiners have excess material and this may be moved in increasing quantities to East Coast markets.

Gasoline and Naphtha

Sales of low octane U. S. Motor gasoline were reported last week as low as 4 cents per gallon. Scattered sales were made at that figure and 4⅛ cents for immediate shipment and delivery over the month. This material came from several refiners located in Oklahoma and Inland Texas. There was considerable buying at the low prices, one Oklahoma marketer purchasing in excess of 500 cars for August delivery. On Monday and Tuesday these same refiners were asking a low of 4¼ cents for resale U. S. Motor gasoline and a large majority of Oklahoma refiners were continuing to quote a low of 4½ cents, the price level established last month.

A majority of the refiners who ask 4½ cents for their low octane U. S. Motor, quote three-eighths cent more for 57-65 octane and five-eighths cent premium for the 65 and higher octane material. At the same time, there are refiners and blenders who are selling a product meeting all the U. S. Motor specifications, coming within the middle octane bracket as low as 4⅝ cents. This low priced material is not coming from refiners with well established brands and a permanent supply at this low price level is not guaranteed.

There is some trading in the 60-62, 400 endpoint grade at prices one-eighth above the U. S. Motor levels but spot sales of 390 and 375 endpoint material are rare at any price. Sales of high gravity 350 and 360 endpoint grades are confined to regular channels.

Natural Gasoline

Natural gasolines did not show the strength last week hoped for by the manufacturers although quotations on some of the grades are fractionally higher than they were a week ago. The 26-70 grade was quoted at 2⅜ cents the first of the week in Oklahoma with a low of 2¼ cents in Texas.

The 18-55 grade brought 2⅞ cents in Oklahoma and 2¾ to 2⅞ cents in Texas. The demand for the 15-pound low vapor pressure grade was active the first of the week with 11 and 9-pound grade not so strong. The 15-pound grade brought 3⅛ cents in Oklahoma and the 11-pound 3⅞ to 4 cents. Sales of 9-pound material as low as 4¼ cents were reported.

Other Products

The situation in regard to burning oils has previously been explained. The price on U.G.I. gas oils in Oklahoma has advanced to a low of 1⅝ cents. There was less distress selling of the high cold test fuel oils from Oklahoma and Panhandle refineries although these products are still from 5 to 10 cents per barrel under the low cold test grades of the same gravity.

Manufacturers of lubricating oils are receiving more inquiries for the low cold test grades of cylinder stocks, neutral oils and finished motor oils. This is a seasonal development in preparation for the fall and winter months. The high cold test grades are moving slowly. No price changes of a general nature were reported.

Revenue Department Makes Additional Rulings on Application of Taxes

By CHAS. E. KERN

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Aug. 8.—Several informal rulings affecting the oil industry were announced by the Bureau of Internal Revenue today. The rulings related to gasoline, lubricating oil, petroleum jellies and paraffin oil "used in the manufacture of floor sweeping compound."

These rulings in answer to specific inquiries follow:

Question 1—Relating to Regulations 44, Article 48:

"Article 48 of Regulations 44 requires that each person subject to tax on lubricating oils and on gasoline shall render a return in duplicate, under oath, for each calendar month, such return, accompanied with the tax, to be filed with the collector on or before the last day of the month following that for which it is made.

"In view of the express provisions of the regulations, it will therefore be necessary for you to file returns on a calendar month instead of on a fiscal month basis as requested."

Question 2—Relating to Regulations 44, Article 55:

"Reference is made to your letter of June 28, 1932, in which you request to be advised if a written order to deliver to a steamship certain quantities of lubricating oil for export to a foreign destination, and the packages marked accordingly is sufficient to cover the requirements of Article 55 of Regulations 44.

"You are advised that lubricating oils shipped in accordance with a written order such as is described above will be regarded as having been sold for export.

"Proof of exportation, however, will have to be evidenced in accordance with Article 56 of Regulations 44 in order for you (the manufacturer) to be exempt from tax on lubricating oil so sold."

Question 3—Relating to Regulations 44, Section 617 (c) (1):

"Receipt is acknowledged of your letter of June 21, 1932, in which you request to be advised whether the taxes imposed on the inventory of gasoline held by chain stations are to be computed on the total amount at all the stations or whether they are to be computed on the stock held by each station individually.

"You are advised that stocks of gasoline held on hand by dealers, jobbers, etc.,

(Continued on Page 30)

American Petroleum Institute Weekly Refinery Statistics

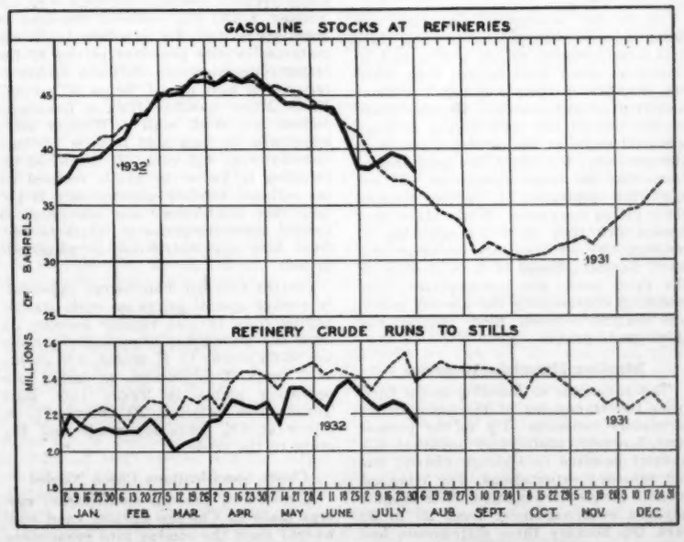
Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Gasoline stocks. (4) Gas oil and fuel oil stocks All figures in 42-gallon barrels.

Week Ending August 6, 1932, Compared to Week Ago

	Week ending August 6				Week ending July 30			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	462,900	5,740,000	8,164,000	100.0	450,300	5,092,000	8,107,000
Appalachian	91.8	82,100	1,457,000	1,114,000	91.8	93,000	1,426,000	1,174,000
Ind., Ill., Ky. ..	98.9	273,900	5,240,000	4,357,000	98.9	288,400	5,252,000	4,363,000
Okla., Kans., Mo.	89.6	208,600	3,043,000	3,166,000	89.6	205,300	3,396,000	3,400,000
Tex. Gulf	99.8	370,700	4,338,000	8,715,000	99.8	408,400	4,701,000	8,441,000
La. Gulf	100.0	102,900	1,529,000	4,530,000	100.0	99,300	1,437,000	4,697,000
Inland Texas ..	76.5	100,100	1,216,000	2,467,000	76.5	102,700	1,250,000	2,312,000
N. La. and Ark..	97.0	41,400	88,000	633,000	97.0	41,600	1,022,000	678,000
Rocky Mtn.	89.4	38,900	1,882,000	579,000	89.4	41,700	1,823,000	621,000
California	96.7	446,100	12,406,000	99,283,000	96.7	444,600	12,759,000	98,807,000
Total U. S. ...	95.1	2,127,600	36,939,000	133,008,000	95.1	2,175,300	38,158,000	132,600,000

Week Ending August 6, 1932, Compared to Year Ago

	Week ending August 6				Week ending August 1, 1931			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	462,900	5,740,000	8,164,000	100.0	452,700	6,103,000	10,362,000
Appalachian	91.8	82,100	1,457,000	1,114,000	91.8	108,400	1,282,000	1,432,000
Ind., Ill., Ky. ...	98.9	273,900	5,240,000	4,357,000	98.9	339,400	5,525,000	3,994,000
Okla., Kans., Mo.	89.6	208,600	3,043,000	3,166,000	89.6	276,100	2,726,000	5,241,000
Tex. Gulf	99.8	370,700	4,338,000	8,715,000	99.8	395,100	5,524,000	7,445,000
La. Gulf	100.0	102,900	1,529,000	4,530,000	100.0	117,400	851,000	1,892,000
Inland Texas ...	76.5	100,100	1,216,000	2,467,000	....	108,100	1,126,000	3,251,000
La. and Ark. ...	97.0	41,400	88,000	633,000	....	64,900	141,000	990,000
Rocky Mtn.	89.4	38,900	1,882,000	579,000	89.3	46,000	1,565,000	826,000
California	96.7	446,100	12,406,000	99,283,000	96.5	473,200	11,899,000	97,953,000
Total U. S. ...	95.1	2,127,600	36,939,000	133,008,000	95.0	2,381,300	36,742,000	133,386,000



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table.

Chicago Reports Market for Kerosene, Distillate, Fuel Oil Strong, But Gasoline Is Weaker

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, Aug. 8.—Strong advances in the kerosene, distillate and fuel oil tank car markets are helping to save refiners from brooding over the adverse turn in the gasoline tank car markets. Refiners who have no regard for the market structures are selling gasoline, and those who are holding the low octane U. S. Motor gasoline at today's top of 4⅝ cents, Group 3, have to all practical purposes withdrawn from the open markets. Although somewhat improved this week, the kerosene markets have not kept pace with the distillates which are in a far better statistical position. Monday, however, found several kerosene sources which had been underselling the markets out of the way.

Jobbers continue to taper off their stocks and their policy has definitely become one of day-to-day buying. Credit is not as easy to obtain as it has been in the past and these buyers are determined to cash in promptly on their material to assure their continuance in business. Developments at the service stations throughout the territory throw a great light on tank car and tank wagon conditions. In the past week the number of price cuts in the low grade gasolines has increased considerably in the Middle West. At a number of points trackage station operators and other price cutters are selling their price competition gasoline at as much as 5 cents below the price of the third grade. In several Michigan towns, for instance, the price of the third grade at the major company stations is 11 cents, excluding the 4 cents in taxes, while at the cut price stations the posting is 6 cents without taxes. In Minneapolis, where the larger companies are selling their third grade gasoline at 5.4 cents below their regular grade, the price cutters have slashed this posting 2 cents, or 7.4 cents below the price of the regular grade and 10.4 cents below the premium grade.

Major and semimajor companies are being deluged with entreaties from their franchise accounts to cut prices, and in numerous cases these buyers have taken the situation in their own hands without awaiting official sanction. Regular grade service station and tank wagon postings are unchanged at the principal points in the territory, but there are good indications that the larger companies will not wait for September 1, before revising their prices downward. While these companies say they have no intention of meeting the price cutters on their own level, further slashes of 3 to 4 cents in the third grade are contemplated, thus widening considerably the already generous margin between their regular and third grade prices.

Blending Materials Advancing

The advantage in blending motor fuels from the standpoint of the price cutter is rapidly vanishing. Up to the present time, however, business in naphthas and natural gasoline in Chicago district has far exceeded expectations. For instance, several distributors gauged their August naphtha requirement at from 20 to 30 cars. On Monday these distributors had sold out their entire committments and were having difficulties in obtaining more. Texas, Arkansas and Oklahoma sources are demanding better prices, and Louisiana and Kansas supplies were reported touching bottom. Natural gasolines have likewise advanced, with the resellers asking even higher prices on the 15-pound material. In the 26-70 material the resellers remain content with an eighth of a cent margin. The 15-pound natural gasoline Monday was 3 cents to buy and 3½ cents to sell, while the 26-70 was 2⅝ cents to the trade. The following quotations were heard Monday in the blending naphtha tank car markets, Group 3 basis: 50-52 420-440 endpoint, 56 octane number, 4⅝ cents for resale; 50-52 415 endpoint, 60 octane number, 4½ cents for resale and 4¾ cents to the trade; 50-52 437 endpoint, 75 octane number, 5½ cents for resale and 5¾ cents to the trade. Unless the weakening gasoline markets reach a point where blending involves a loss, these prices are expected to improve slightly this week due to the limited supply of these materials. Any weakening in the natural gasoline markets, obviously, will aid the naphthas. Blending developments are discussed somewhat at length because they help explain what has happened in connection with the long overdue burst of jobber buying refiners have been waiting for. Although jobbers might resort to hand-to-mouth tactics, and although consumption may be as much as 10 per cent below last year at this time, the daily dribbles of gasoline business should certainly register better than the current near famine. The discrepancy is accounted for by blending, and the competing blended motor fuels range from extremely high vapor pressure mixtures of kerosene and kerosene distillate and 26-70 natural gasoline which has an initial of about 80° and an endpoint beyond 450°, to 75 octane, 437 endpoint naphtha and 15-pound natural gasoline.

Little Hope for Gasoline Stability

Executives of major and semimajor companies which have held their prices unchanged for the past two weeks (and consequently have done a negligible spot market business) say that the larger marketers cannot hold out much longer against the price cutting inroads of irresponsible producers. "There are too many refiners down in the field who are quoting 4 and 4⅛ cents to resellers to hope much for the gasoline tank car markets," a vice president of one of the larger companies said. A Tulsa broker is reported to have placed "below 60 octane" U. S. Motor gasoline from a Louisiana refiner last week with a Wichita marketer who in turn sold it to a Chicago distributor at 4⅛ cents. It would be interesting to know the profit realized by the refiner. Another ominous sign is the fact that distributors are beginning to receive those telegrams in which the refiner asks the distributor to name his price.

Certain Chicago distributors apparently receive special prices on open market buying from various regular sources. At least one distributor is paying 4½ cents for 66-68 octane U. S. Motor, and resells at 5 cents. Two refiners, at least, both operating plants in Texas (not East Texas), are offering 70 octane U. S. Motor at 4⅝ cents for resale and 4¾ cents to the trade.

Closer Specifications Check Needed

A review of gasoline specification surveys made in Chicago district (and elsewhere) since the coming into prominence of octane ratings and Reid vapor pressures reveals the fact that a more complete check on gasolines sold at the service stations is in order. Gasolines taken from service stations boasting 65-70 octane motor fuels have shown an octane rating of 56, while vapor pressures have ranged up to 15 pounds. A number of samples have shown gum content (copper dish) far in excess of the 15 m.g. held as the limit by the A.S.T.M. D-2 committee. One sample had a gum content on this test of 640 m.g. per 100 c.c.'s. A larger number of samples turned deep yellow on brief exposure to sun light. A number of samples of gasoline sold at the price cut stations had endpoints of 450° and over.

Gasoline Tank Car Markets

Prices to the trade in the Chicago district gasoline tank car markets were unchanged from last week Monday, but it was generally felt that the lower prices offered to resellers from no less than nine Mid-Continent and Texas sources will be reflected this week in shaded prices to the trade. Monday's prices were: U. S. Motor, 4⅜ to 4⅝ cents; 60-62 400 endpoint, 4½ to 4⅝ cents; 64-66 375 endpoint, 4⅝ to 4⅞ cents; 68-70 360 endpoint, 4⅞ to 5 cents. Distributors Monday were able to buy "below 60 octane" U. S. Motor at 4 to 4⅛ cents, while high octane bracket material was offered to these buyers at an eighth of a cent above the daily published low of the low octane gasoline. Many of the refiners are quoting 4⅝ cents on the third grade and report that some one else is getting the business. How long these refiners will be content to watch this business go by, is naturally unknown, but the indications are that if the cut price material is not eliminated in another week the low prices will be met and the expected downward revisions in the service station markets will be anticipated by a few weeks.

Naphtha Tank Car Markets

With two exceptions the naphtha tank car markets in Chicago district were unchanged from last week. Two of the listed products, cleaner's naphtha and Stoddard solvent, advanced an eighth of a cent from last week's lows to ranges of 6⅜ to 6½ cents, and 5⅜ to 5¼ cents, respectively. A heavier lacquer diluent than the two materials listed likewise advanced an eighth of a cent to a low of 7⅝ cents. Blending naphthas are scarce and higher in price as noted elsewhere.

Kerosene Tank Car Markets

The kerosene tank car markets have apparently got away from the influence of the refiners who are causing so much trouble in the gasoline tank car markets, and Saturday found a number of distributors abruptly informing their customers that they were sold out. At least two major refiners and two semimajors are out of the kerosene spot markets with quotations of 3½ cents on the 41-43 water white material. Monday's prices were 2⅞ to 3 cents on the 41-43 kerosene, and 3 to 3⅛ cents on the 42-44 material. As in the case of distillates and furnace oils prices were expected to advance at least an eighth of a cent this week.

Distillates and Fuel Oils

The distillate and fuel oil markets showed promise of advancing more strongly this week than last when advances of an eighth of a cent were made. The light straw 38-40 tractor fuel was practically on a par with the prime white material, and while buyers complained that they could not get delivery on any of the distillates, scarcity was especially marked in this material. Standard Oil Co. of Indiana advanced the tank car price on its No. 1 furnace oil sharply from 4.75 cents to 5.75 cents, f.o.b. Whiting, last week. Sinclair Refining moved up the Group 3 price on its 28-30 zero fuel oil from 65 to 70 cents, depending on destination.

See Tank Wagon Advance

Advances of from a half cent to a cent were expected to be announced Wednesday in the heating oil tank wagon markets by several refiners and the Chicago Oil Heat Institute. The new prices were expected to be as follows, the second figure representing top on contract business: No. 1, 7 and 8½ cents; No. 2, 6½ and 8 cents; No. 3, 5¾ and 7¼ cents; No. 4, 4¾ and 5¾ cents, and No. 5, 5 and 6 cents. The current setup is: No. 1, 350 gallons or over, 6 and 7½ cents; No. 2, 5½ and 7 cents; No. 3, 4¾ and 6¼ cents; No. 4, 4¼ and 5¼ cents; No. 5, 4 and 5 cents.

With comparatively little material available, and practically none from prompt shipment, Monday's prices were strong as follows: 38-40 light straw, 2⅜ to 2½ cents; 38-40 straw, 2¼ to 2⅜ cents; 32-36 straw, 2⅛ to 2¼ cents. In the heavier fuel oils prices were widely at variance due to certain characteristics of some fuels. One 18-22 fuel, zero to 15°, was offered at 40 cents to the trade, while ruling prices on this gravity material is 30 to 35 cents, an advance of 5 cents. A 28-30 zero fuel offered by Sinclair at 70 cents is unique in its specifications with a viscosity of 51½ Saybolt Universal at 100° F., and is under 200 flash. Along with the better prices on distillates and fuel oils, is the offering of one Chicago district refiner of a 30 gravity oil of 195° flash and 36-100° F. viscosity at 3½ cents f.o.b. East Chicago plant.

Contract Top Prices

One refiner who probably handles the major part of the tank car business in this area bases his contract price on the crude oil markets. The maximum prices shown below shall be increased 5 cents per barrel or an eighth of a cent per gallon, depending upon the unit of price basis, for each 10 cents per barrel increase over a price of 92 cents per barrel of 36 gravity crude oil as posted by the Carter Oil Co. in Oklahoma with the proviso that the said crude oil price for this basis of computation of maximum shall not exceed $1.15 per barrel. Contract tops are as follows: 36-40, 2¾ cents; 36-40 dark straw, 2⅝ cents; 32-36, 2½ cents; 32-36 dark, 2⅜ cents; 32-36 zero fuel oil, 2½ cents; 32-36 industrial gas oil (zero to 30), 2¼ cents; 30-32, $1.025 per barrel; 28-30 domestic, 92½ cents per barrel; 28-30 industrial fuel oil, 92½ cents per barrel; 26-28 fuel, 82½ cents per barrel. All of these are zero fuels unless otherwise noted; 24-26 fuel oil, 15° cold test, 72½ cents; 24-26 fuel oil, 30-50° cold test, 67½ cents; 18-22, zero to 15°, 62½ cents; 18-22 zero, 62½ cents. Spot market prices on the first two grades are based on the 38-40 straw distillate and an eighth under, respectively. The 32-36 materials are based on the 32-36 dark zero gas oil average. The 30-32 zero fuel oil is based on the average of the 28-30 zero plus 10 cents. The 24-26, 30-50° cold test is based on the average of 18-22 zero plus 5 cents.

Gasoline Market in East Unsettled by Growing Competition, With Gallonage Receding

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, Aug. 8.—Refinery gasoline markets in the East felt the effects of increasing competition during the last week, and while no price changes have developed among the major sellers, so far as the posted schedule is concerned, considerable tank car business is reported to have been done under posted levels in some quarters of the trade. The retail situation in the metropolitan New York area developed further irregularity and the outlook for higher prices in this territory, which has been 2 to 3 cents per gallon under the rest of the East for some time, appeared less favorable.

Organized retail distributors in two of the five boroughs making up the city of New York have filed a complaint with the Federal authorities, specifically charging most of the major companies operating here with "practices, agreements, conspiracies, combinations and understandings, expressed or implied, in restraint of trade and commerce." The dealers allege that since May 21 they have been unable to "shop around" and buy gasoline and other products, and that since that date the major companies have been endeavoring to force all dealers to sign contracts providing for exclusive purchases from one source.

Gasoline gallonage in East Coast markets has eased off slightly, and refiners are concerned over the possibility of a severe drop during the closing months of the year. Opinion is sharply divided on this question, however, some sellers believing that the decline in this area for the rest of the year will be under the general average decline for the country as a whole, while others look for a drop of 15 per cent. The additional 1-cent Federal excise tax on gasoline, however, has put retail prices to the point where bootlegging for the evasion of state taxes is a still more attractive proposition, and for this reason it is felt that the consumption totals as indicated by state reports on tax sales may not prove an entirely accurate reflection of total gallonage.

Refineries in this territory are curtailing runs and are making some progress in reducing surplus stocks, and it is probable that further sharp cuts in plant operations will be ordered to offset the seasonal drops in consumption.

Refinery Gasoline

No changes in posted prices were reported at the principal East Coast markets during the week, but the market undertone had softened and price shading was on the increase. The posted price for low octane gasoline locally was 8 to 8¼ cents per gallon in tank car lots at terminals, but some material was available down to 7¾ cents, and the volume of business at the top price of 8¼ cents was rather limited. Similarly, on the high octane motor fuel, of 65 octane number or better, material was offered at 8 to 8¼ cents on spot, against the posted prices of 8½ to 8¾ cents, although the amount of gasoline available at 8 cents was extremely limited. Price shading at other points on the Atlantic Seaboard was also reported.

Reports of an accumulation of gasoline in the Southwest, with indications that cargo lots for shipments to Atlantic Coast ports might soon be available at concessions, have tended to unsettle the market position somewhat in this area, while pending increased shipments of California motor fuel have also had their effect on market sentiment.

There was a drop of 378,000 bbls. in visible supply of gasoline in the East during the week ended July 30, refinery stocks totaling 5,992,000 bbls., against 6,345,000 bbls. at the close of the previous week, with total stocks at refineries, bulk terminals, and in transit aggregating 19,405,000 bbls., as compared with 19,783,000 bbls. at the close of the preceding week.

Jobbing demand slackened a little, with distributors less inclined to keep their storage filled in view of the uncertain outlook in the tank car market. However, consumption is running currently around peak levels for the year, and distributors are compelled to keep fairly large stocks on hand and replacements "rolling" to insure their being in position to take care of all requirements.

There are no definite indications of an impending cut in tank car gasoline quotations, but leading interests are keeping a close watch on the competitive situation, and if price cutting in tank car markets spreads further it is likely that a revision in posted schedules will come with little or no advance warning.

Tank Wagon Gasoline

No general changes in posted prices developed, but local price cutting is still an important factor in some sections and major marketers are meeting local competition as it develops.

The retail situation in metropolitan New York is still disturbed, and prices are being shaded at many points, despite the fact that posted quotations for this market are 2 to 3 cents under those existing in the other parts of the territory.

The competitive situation in Brooklyn and Queens, which has been kept somewhat in hand by the Gasoline Merchants' Association of Brooklyn and Queens during recent months, shows disconcerting signs. Charging flagrant violation of the organization's code of ethics, its business manger has resigned. Among other things, he alleged that members were cutting prices, giving free oil with gasoline purchases, and giving presents to their larger customers. In resigning, he predicted a price war in the territory, to be directed against some of the major companies which have recently reduced the independent filling station operator's profit from 5 to 3 cents per gallon.

There has been relatively little marketing of third grade gasoline in metropolitan New York, owing to the extremely low prices posted on leading grades of regular gasoline thus far in the summer season, but reports from other parts of the territory indicate that third grade motor fuel has been introduced on a fairly wide scale at many points where local price competition developed. Refiners stress the fact that this year's third grade gasoline, however, is generally far superior in quality to the third grade products marketed during the preceding two years.

Regular U. S. Motor gasoline, under 65 octane, which has been available in tank car markets at a half cent under the quotations for high octane motor fuel, is meeting with an exceptionally heavy sale in this territory, but marketers believe that with the advent of colder weather demand will swing definitely to the high octane products. Notwithstanding the high octane rating of a number of new and improved gasolines which have recently made their appearance on the market, the demand for premium grades still continues an important factor in the distributing situation.

Kerosene

There was a slight improvement in demand for kerosene for refinery shipment during the past week, and the market was a little steadier, with leading sellers adhering to the posted price of 5½ cents per gallon for 41-43 water white in tank car lots. Practically all of the demand was for spot kerosene, however, little demand having developed thus far for material for delivery over the fall season.

Retail kerosene markets showed continued quiet, with tank wagon quotations unchanged throughout the territory. Refiners are expanding their retail sales outlets through the addition of kerosene stocks at company-owned gasoline stations, and indications are that a record percentage of retail gallonage will be distributed through these channels during the coming winter season.

Lubs

Spot volume continued along rather curtailed lines and the market for cylinder oils, which had eased off during the closing half of July, remained unchanged at former levels. The curtailment in gasoline gallonage, incidental to a lighter volume of motoring this year, has been reflected in retail lub oil sales, and compounders and blenders are curtailing their operations pending more definite indications as to the outlook for retail sales over the balance of the year.

Retail lub oil markets are still seriously affected by the competition of low-priced "100 per cent pure Pennsylvania oil," and the situation has been further complicated by the action of filling station operators, in some instances, of giving away crankcase oils with purchases of gasoline.

In the market for industrial lub oils, conditions were much the same as during the previous week, although towards the close of the period refiners reported that inquiries for nearby shipments were picking up. The quickening of industrial activity in many lines in the large manufacturing centers of the East, however, is expected to make for early and substantial improvement in lub oil gallonage.

Furnace Oil

More activity is reported in the furnace oil market with the fall season drawing nearer, and refiners are booking contract business, for delivery over the coming heating season, with distributors.

The tank car price quoted for domestic heating oils for the coming season holds unchanged at 4½ cents per gallon for 32-36 gravity (No. 2) oil and 5½ cents per gallon for 36-40 (No. 1) furnace oil.

Fuel Oil

Bunker oil markets continue to show a steady undertone, with the posted price for bunker "C" unchanged at 85 cents per barrel terminals, or 90 cents per barrel f.a.s. in the harbor. Volume has been showing a little improvement, due to a quickening in shipping operations and the entry of new vessels into the New York run.

Refiners report that tank car movement of 21 gravity industrial fuel oil is on the increase, and the market is showing a steady undertone at 4 cents per gallon in tank car lots.

Notwithstanding the wide margin between Gulf and California prices for bunker oil, and quotations at East Coast ports, no trading in the outside oil in cargo lots for shipment here has developed in the open market. This is attributed to the fact that the major companies, with refining properties in this territory, control by far the great bulk of the storage and marketing facilities for bunker oil on the eastern seaboard. Some intercompany movement may develop, however, if the present differential continues.

Diesel Oil

More domestic industrial demand for Diesel oil has developed, and the tank car market remains firm and unchanged at 4 cents per gallon, f.o.b. terminals.

In the marine division of the trade there has been a well-sustained contract demand throughout the week, with some spot business coming to light. Refiners continue to hold to the posted price of $1.65 per barrel in bulk at terminals, or $1.71½ per barrel delivered alongside, within harbor limits.

Gas Oil

Contract deliveries are accounting for the bulk of the current movement, with gallonage holding at seasonably low levels. The market undertone, however, appears fairly steady, and refiners continue to post 4 cents per gallon for 28 gravity plus recycled oil, although this price can be shaded fractionally in some quarters.

Curtailment in refinery runs, planned to go into effect shortly in this territory, is expected to result in improvement in the statistical position of the gas and fuel oil markets.

Wax and Petrolatum

Domestic demand for both paraffin wax and petrolatum was along routine lines again during the past week, and the market was without price alteration on either product.

Consuming manufacturers are expected to materially increase their demands for material during the closing quarter of the year, but thus far there has been little inquiry for later shipments.

Gulf Export Market

Export prices on gasoline and kerosene were again nominally unchanged at the Gulf during the week, and no trading level could be established in the continued absence of demand from abroad.

Domestic sellers were figuring on a cargo of fuel oil for shipment to Amsterdam, but with sellers at the Gulf unwilling to go under 52½ cents a barrel it appeared probable late in the week that the business would go to Trinidad, which was quoting 50 cents per barrel on the business.

No trading in either Venezuelan or Mexican crude was reported during the week and prices were unchanged at previous levels.

The only price change reported from Constanza on Rumanian oil was on second grade white spirit, which was quoted at $8.90 per ton, up 52 cents from the previous week's quotation. Rumanian exporters are quoting gasoline at $16.40 per ton for 730 gravity motor fuel and $12.27 per ton for heavy gasoline. The Rumanian product has a high octane number, with a natural antiknock quality, and is meeting with considerable success in European markets formerly buying in large quantities from the United States.

Petroleum Exports

Routine export movement of refined

(Continued on Page 44)

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21.

Gasolines

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
*U. S. Motor	.04½	.04¾	.04½	.04¾
60-62 400	.04⅝	.05	.04⅝	.05
64-66 390	.04¾	.05⅛	.04¾	.05⅛
64-66 375	.04¾	.05⅛	.04¾	.05⅛
68-70 350	.04⅞	.05¼	.04⅞	.05¼
NORTH TEXAS—				
*U. S. Motor	.04⅜	.04½	.04⅜	.04½
60-62 400	.04½	.04⅝	.04½	.04⅝
64-66 390	.04⅝	.04¾	.04⅝	.04¾
64-66 375	.04¾	.05	.04¾	.05
64-66 360	.04⅞	.05⅛	.04⅞	.05⅛
†NORTH LOUISIANA—				
*U. S. Motor	.05		.05	
60-62 400	.05¼		.05¼	
†ARKANSAS—				
*U. S. Motor	.05		.05	
CHICAGO Based on Okla. (Group 3)—				
*U. S. Motor	.04⅜	.04⅝	.04⅜	.04⅝
60-62 400	.04½	.04⅝	.04½	.04⅝
64-66 375	.04⅝	.04⅞	.04⅝	.04⅞
Aviation fighting grade	.05	.05¼	.05	.05¼
68-70 360	.04⅞	.05	.04⅞	.05

Octane Ratings—Above quotations cover price ranges on gasoline in which no octane rating is given. On August 9, in the case of the U. S. Motor and 60-62-400 endpoint grades, where an octane rating of 57-65, inclusive, is guaranteed, prices are three-eighths cent per gallon higher than quotations shown in above tables; where an octane rating of better than 65 is guaranteed, the prices are five-eighths cent higher. In the case of the remaining grades, gasolines of 65 octane rating or higher are quoted one-half cent higher than the quotations shown in above tables.

Unless otherwise provided by agreement of buyers and sellers, the Series 30 testing equipment of the Ethyl Gasoline Corp. is recognized as standard in determining octane ratings.

*Present distillation specifications on U. S. Motor gasoline are: 10 per cent evaporated, 167° F. maximum; 50 per cent, 284° F. maximum; 90 per cent, 392° F. maximum; residue not exceeding 2 per cent; maximum vapor pressure, 12 pounds. Additional specification on U. S. Motor gasoline available from bulletins of Bureau of Mines, Washington, D. C.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.06⅞	.07	.06¾	.07
60-62 400	.07	.07⅛	.06⅞	.07
64-66 375	.07⅛		.07	.07⅛
68-70 350	.07¼	.07⅜	.07⅛	.07¼

Octane Ratings—In the case of U. S. Motor and 60-62 400 endpoint grades, same price differentials based on octane ratings as shown in above tables for Oklahoma and other Mid-Continent areas:

CALIFORNIA (domestic movement only)—				
54-58 U. S. Motor	.06¾	.07	.06	.07¼
58-60 400	.06¾	.07¾	.06¾	.07¾
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.08	.08¼	.08	.08¼
Boston	.08¼		.08¼	
Baltimore, Md.	.08¼		.08¼	
Charleston, S. C.	.07¾	.08¼	.07¾	.08¼
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.08½	.08¾	.08½	.08¾
Boston	.08¾		.08¾	
Baltimore, Md.	.08¾		.08¾	
Charleston, S. C.	.08½	.08¾	.08½	.08¾
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.05½	.05¾	.05½	.05¾
U. S. Motor, below 65 octane number	.05¼	.05½	.05¼	.05½

Naphthas

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
50-52 450 (blending)	.04½	.04⅝	.04½	.04⅝
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.06½	.06¾	.06½	.06¾
ARKANSAS—				
48-50 450 (blending)	.05	.05⅛	.05	.05⅛
CHICAGO Based on Okla. (Group 3)—				
50-52 450 (blending)	.04⅜	.04⅝	.04⅜	.04⅝
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06⅜	.06½	.06¼	.06½
Lacquer diluent, 180 i.b.p.-250 e.p.	.08⅜	.08⅝	.08⅜	.08⅝
Lacquer diluent, 140 i.b.p.-200 e.p.	.09		.09	
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.06¼	.06½	.06¼	.06½
Stoddard solvent, 300 i.b.p.-410 e.p. over 100° flash	.05⅝	.05¾	.05½	.05¾
Pet. thinner, 290, 300 i.b.p., 415 e.p., over 83° flash	.05	.05¼	.05	.05¼
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06	.06¼	.06	.06¼
Petroleum spirits	.04⅛	.05¼	.04⅛	.05¼

Natural Gasolines

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
Grade 18-55	.02⅞		.02¾	.02⅞
Grade 26-70	.02¾		.02¼	.02⅝
Grade 30-70	.02¼		.02⅛	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.03½		.03⅛	
11 lb. v.p. (max.)	.03⅞	.04	.04	
NORTH TEXAS—				
Grade 18-55	.02¾	.02⅞	.02¾	
Grade 26-70	.02¼	.02⅝	.02¼	.02⅜
Grade 30-70	.02¼		.02⅛	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.03½		.03	.03⅛
11 lb. v.p. (max.)	.03⅞		.03⅞	.04
NORTH LOUISIANA—				
Grade 26-70	.02⅝		.02½	
CALIFORNIA—				
75-78 375	.04½	.05½	.04¼	.04¼

Note—Grades 18-55, 26-70 and 30-70 are three of 24 grades adopted by the Natural Gasoline Association of America effective January 1. The grades are based on pounds vapor pressure and amount evaporated at 140° F. While not exactly the same specifications apply, Grade 18-55 corresponds to the former Grade A, Grade 26-70 to former Grade AA and Grade 30-70 to former Grade BB.

*All grades have minimum recovery of 96 (natural gasoline method).

Kerosenes

(All kerosenes water white)

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
41-43	.02¾	.03	.02¾	.02⅞
42-44	.03	.03⅛	.02⅞	.03⅛
NORTH TEXAS—				
40-41	.02½		.02½	
41-43	.02⅝	.02¾	.02⅝	.02¾
†NORTH LOUISIANA—				
41-43	.03½		.03½	
42-44	.03¾		.03¾	
†ARKANSAS—				
41-43	.03½		.03½	
PENNSYLVANIA (inland refineries)—				
45	.04½	.04⅝	.04⅝	.04¾
46	.04⅝	.04¾	.04¾	.04⅞
47	.04¾	.05	.04⅞	.05⅛
CHICAGO (Based on Group 3)—				
41-43	.02⅞	.03	.02⅝	.02⅞
42-44	.03	.03⅛	.02⅞	.03
*CALIFORNIA—				
38-40 high burning test	.04	.05	.04	.05
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04¼	.04½	.04¼	.04½

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Tractor Fuels*

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
39-40 prime white	.02⅝		.02¼	
38-40 light straw	.02½		.02⅝	
NORTH TEXAS—				
38-40 light straw	.02⅜		.02⅛	.02¼
CHICAGO (Based on Group 3)—				
38-40 light straw	.02⅜	.02½	.02¼	.02⅜
PENNSYLVANIA (inland refineries)—				
41-43 prime white	.04		.03¾	.04

*There are no standard specifications for tractor fuels. Grades commonly sold have flash under 175° F. (open cup) and under 575° F. endpoint and less than .2 per cent sulphur. Tractor fuels are available from all Mid-Continent refining groups at prices in line with the Oklahoma market taking into consideration differentials in freight rates.

Furnace Oils*

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
32-36 straw	.02⅛		.01⅞	.02
36-38 straw	.02⅝		.02	.02⅛
38-40 straw	.02½		.02⅛	
39-41 prime	.02⅝		.02¼	
NORTH TEXAS—				
38-40 straw	.02⅜	.02½	.02	.02⅛
†NORTH LOUISIANA—				
36-40	.02¾		.02½	
†ARKANSAS—				
32-36	.02½		.02¼	.02½
CHICAGO (Based on Group 3)—				
32-36 straw	.02⅛	.02¼	.02	.02⅛
38-40 straw	.02¼	.02⅜	.02⅛	.02¼
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03¼	.03½	.03¼	.03½
NEW YORK (Bayonne, N. J.)—				
32-36	.04½		.04½	
36-40	.05½		.05½	
21 (industrial)	.04		.04	

*Above prices are for furnace oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
32-36 (G.O.) cracking stock	.01⅛		.01⅜	.01½
U.G.I. (G.O.)	.01⅜		.01¼	.01⅜
32-36, zero to 15 (G.O.) high flash	.01⅝	.01⅞	.01½	.01⅝
28-30, zero to 10	.55		.50	.55
26-30, zero to 10	.50	.52½	.50	
24-26	.42½	.45	.42½	.45
20-22	.40	.45	.40	.45
16-20	.37½	.40	.37½	.40
Below 16	.35	.37½	.35	.37½
NORTH TEXAS—				
32-36 (G.O.) industrial	.01⅜		.01¼	.01⅜
22-26	.45	.50	.45	.50
Below 20	.32½	.37½	.30	.35
NORTH LOUISIANA—				
32-36 (G.O.) zero	.02	.02⅛	.02	
14-16	.35	.40	.35	.40
†ARKANSAS—				
32-36 (G.O.) zero	.02		.02	
14-16	.35	.40	.35	.40
CHICAGO (Based on Group 3)—				
32-36 (G.O.) industrial	.01¼	.01½	.01¼	.01½
28-30 (zero)	.60	.65	.55	.60
22-26	.42½	.47½	.40	.45
18-22	.30	.35	.27½	.32½
Below 18	.27½	.32½	.25	.30
PENNSYLVANIA (inland refineries)—				
36-40	.03	.03¼	.03	.03¼

Note—Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.70	.85	.70	.85
27 plus Diesel	.70	.85	.70	.85
15-19 Bunker (at tidewater)	.55	.75	.55	.75
15-19 Bunker (cargo lots)	.50	.65	.50	.65
15-19 Bunker (tank car)	.45	.65	.45	.65
GULF COAST—				
28-30 (G.O.)	.03	.03⅛	.03	.03⅛
28-30 Diesel	1.50		1.50	
Bunker C (bulk cargoes)	.55	.60	.55	.60
Bunker C (bunkers)	.70		.70	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.04		.04	
*28-30 Diesel	1.65		1.65	
26-32 Diesel (tank cars)	.04		.04	
†Bunker C	.85		.85	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	3.50	3.75	3.50	3.75
Still runs	3.75	4.00	3.75	4.00
Lump and egg	5.00	5.50	5.00	5.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.09¾	.10	.09¾	.10
240-4	.09¼	.09½	.09¼	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10¼	.10½	.10¼	.10½
300-3.5	.11¼	.12	.11¼	.12

350-3.5	.12¼	.12½	.12¼	.12½
400-4	.12¾	.13	.12¾	.13
500-4.5	.13¼	.13½	.13¼	.13½
100-2 Paraffin Oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07¾	.08	.07¾	.08
200-4	.07½	.07¾	.07½	.07¾
240-3	.09¼	.09½	.09¼	.09½
240-4	.08¾	.09	.08¾	.09
280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¾	.10
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.15	.16	.15	.16
10 pour test	.14	.15	.14	1.5
15 pour test	.13½	.14½	.13½	.14½
25 pour test	.12¾	.13¼	.12¾	.13¼
30 pour test	.12¾	.13	.12¾	.13
180 vis., No. 3, 25 pour test	.15½	.16	.15½	.16
200 vis., No. 3:				
Zero pour test	.22	.23	.22	.23
10 pour test	.21	.22	.21	.22
15 pour test	.19½	.20	.19½	.20
25 pour test	.17	.17¼	.17	.17¼
30 pour test	.17		.17	
GULF COAST—				
Pale Oils:				
100-2-2½	.05		.05	
200-3	.06½		.06½	
300-3	.07		.07	
500-3½	.08	.08¼	.08	.08½
750-3½	.09	.09½	.09	.09½
1,200-3½	.10½	.11	.10½	.11
2,000-4	.12	.12½	.12	.12½
Red Oils:				
200-5-6	.05	.05½	.05	.05½
300-5-6	.05½	.06	.05½	.06
500-5-6	.06¾	.07	.06¾	.07
1,200-5-6	.09½	.10	.09½	.10
2,000-6 plus	.11	.11½	.11	.11½
CALIFORNIA—				
Pale Oils:				
100-2¼-3	.07¾	.08	.07¾	.08
200-2½-3	.07¾	.08	.07¾	.08
300-3-3½	.08¼	.08½	.08¼	.08½
350-3-4	.08¾	.09	.08¾	.09
400-3-4	.09¼	.09¾	.09¼	.09¾
450-3-4	.09¾	.10	.09¾	.10
550-3-4	.10¼	.11	.10¼	.11
Red Oils:				
200-4½-5	.07	.07¼	.07	.07¼
300-5-6	.07½	.07¾	.07½	.07¾
350-5-6	.07¾	.08	.07¾	.08
400-5-6	.08	.08¼	.08	.08¼
450-5-6	.08¼	.08½	.08¼	.08½
500-5-6	.08½	.08¾	.08½	.08¾
600-5-6½	.08¾	.09	.08¾	.09
700-6½ plus	.09	.09¼	.09	.09½
750-6½ plus	.09	.09¼	.09	.09½
900-6½ plus	.12	.13½	.12	.13½

Bright and Steam Refined Stocks

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
630 light green	.07¾	.08	.07¾	.08
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stock:				
190-200 D	.23		.23	
150-160 D, 0-10	.22		.22	
150-160 D, 10-25	.21½		.21½	
150-160 D, 25-40	.21		.21	
150-160 E	.21		.21	
PENNSYLVANIA—				
600 S.R.	.14	.15	.14	.15
650 S.R.	.17	.17½	.17	.17½
600 Pennsylvania flash	.18	.18½	.18	.18½
600 D filtered	.22½	.23	.22½	.23
600 E filtered	.16¾	.17	.16¾	.17
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis. 210-540-550 flash:				
10 pour test	.28	.30	.28	.30
15 pour test	.27	.27½	.27	.27½
25 pour test	.26	.26½	.26	.26½
35 pour test	.26		.26	

Wax and Petrolatum

(Prices per pound)

	Aug. 9		Aug. 2	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.01⅝	.01¾	.01⅝	.01¾
PENNSYLVANIA—				
122-124	.01⅞		.01⅞	
124-126	.02		.02	

NEW YORK (Bayonne, N. J.)—		
Refined Wax:		
120-122	.02⅜	.02⅜
125-127	.02⅞	.02⅞
130-132	.03¼	.03¼
133-135	.04	.04
135-137	.04⅛	.04⅛
Petrolatum in barrels in carload lots:		
Dark green	.01¾	.01¾
Amber	.02⅛	.02⅛
Extra amber	.02½	.02½
Cream	.04⅝	.04⅝
Lily white	.05½	.05½
Snow white	.06½	.06½

Export Prices

GASOLINE

GULF COAST—	Aug. 9		Aug. 2	
U. S. Motor	.04½		.04½	
60-62 400	.04⅝		.04⅝	
61-63 390	.04¾		.04¾	
64-66 375	.05		.05	
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55, 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.05		.05	
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-60 400 endpoint gasoline.	.04¼	.05	.04¼	.05

KEROSENE

GULF COAST—				
41-43 prime white	.04¾		.04¾	
41 water white	.04½		.04½	
LOS ANGELES, CALIF.—				
41-43 water white	.04	.05	.04	.05

LUBRICANTS

NEW YORK (Bayonne, N. J.)—				
600, steam refined cylinder stocks, in bbls.	.21	.22	.21	.22
650, steam refined	.24	.25	.24	.25
600, Pennsylvania flash	.24½	.25	.24½	.25
630, Pennsylvania flash	.29	.30	.29	.30
600, Warren E	.23½	.24	.23½	.24
600, Oil City E	.22½	.23	.22½	.23
Light 140-150 Bright Stocks	.32	.33	.32	.33
Dark 140-150 Bright Stocks	.30	.31	.30	.31

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (Apr. 1, 1932)† ..... $ .98
East Texas (April 11, 1932)‡ ..... .98
Corsicana heavy* ..... .64
Other fields ..... See gravity table

†Posted by Magnolia Petroleum Co., Sinclair Refining Co., Panola Pipe Line Co., Tidal Refining Co. and The Texas Company. ‡Gulf Pipe Line Co. and Atlas Pipe Line Co. *Magnolia Petroleum Co.

Eastern States

JOSEPH SEEP PURCHASING AGENCY
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field) (Mar. 14, 1932) $2.02
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 1.75
Penna Grade Oil in Eureka Pipe Line Lines (West Virginia) (Feb. 26, 1932) 1.70
Penna Grade Oil in Buckeye Pipe Line Lines (Mar. 12, 1932) 1.55
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Apr. 26, 1932) 1.05
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931) ... .60

PENNZOIL CO.
(Effective April 25, 1932)

Pennsylvania Grade Oil in National Transit Lines:
Group A $1.97
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 1.96
Includes Titusville district.
Group C 1.95
Includes Turkey and Tidiout districts.
Group D 1.94
Includes Bear Creek and Porkey districts.
Group E 1.93
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emienton, Tiona, Lacy and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.

TIDE WATER PIPE CO.
(Effective April 25, 1932)

Bradford, Pa. $2.02
Allegany, N. Y. 2.02

PURE OIL CO.
(Effective April 25, 1932)

Cabin Creek, W. Va. $1.70
Bradford Hollow, W. Va. 1.70
Kelly's Creek, W. Va. 1.70

Texas Panhandle

Gray County, Wheeler County and Carson-Hutchinson Counties....See gravity table

Rocky Mountain States

OHIO OIL CO.-MIDWEST REFINING CO.
Ilas, light (Aug. 24, 1931) ..... $ .75
Ilas, heavy (Aug. 24, 1931) ..... .53
Fort Collins (April 11, 1932) ..... .85
Florence (April 11, 1932) ..... .80
Wellington (April 11, 1932) ..... .76
Greasewood Dome, Colo. (Apr. 11, 1932) 1.00
Dutton Creek (Apr. 11, 1932) ..... .82
Rock Creek, Wyo. (June 1, 1932) .... .90
Frannie, light (Nov. 3, 1931) ..... .61
Frannie, heavy (Nov. 3, 1931) ..... .51
Salt Creek.....Mid-Continent gravity table
LaBarge.....Mid-Continent gravity scale
Big Muddy (Apr. 11, 1932) ..... .95
Grass Creek (June 1, 1932) 1.10
Elk Basin (June 1, 1932) 1.10
Lance Creek (Apr. 11, 1932) 1.15
Poison Spider (Mar. 5, 1931) ..... .70
Notches (Mar. 14, 1927) ..... .65
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40
Rex Lake (Feb. 22, 1930) 1.10
Osage (Apr. 15, 1931) ..... .95
Lost Soldier (Apr. 12, 1932) ..... .80
Hamilton Dome (Nov. 3, 1931) ..... .45
Greybull (Apr. 11, 1932) 1.20
Cat Creek (Apr. 11, 1932) 1.20
Pondera (Nov. 3, 1931) ..... .90
Sunburst, Mont. (Apr. 11, 1932) 1.05
Hogback, N. Mex. (Aug. 24, 1931) .... .80
Border, Mont. 1.55
Red Coulee, Alberta 1.55
Lea County, N. Mex. (Apr. 1, 1932)* . .65
Maljamar (Apr. 11, 1932) ..... .60
Artesia-Jackson (Apr. 11, 1932) ..... .65

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Ilas by Midwest Refining Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County posted by Humble Oil & Refining Co. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

*Posted by The Texas Company. Humble Oil & Refining Co. met this price effective April 11.

West Texas

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties* ..... $ .65
Lea County, N. Mex. (See Rocky Mountain States.)
Toborg, Pecos County (Apr. 11, 1932)†.. .55

*Effective April 1, 1932, Magnolia Petroleum Co., The Texas Company. Effective April 11, Humble Oil & Refining Co. and Gulf Pipe Line Co. and Stanolind Oil & Gas Co. in Winkler County. †Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B classifications discontinued by leading buyers.....
.....See gravity table
Jennings, La. (Apr. 11, 1932)* ..... $ .75
Lockport, La...See Gulf Coast gravity table
Refugio, light.....See gravity table
Refugio, heavy (Apr. 11, 1932)‡..... .80
Markham (Apr. 11, 1932)§.....
.....See Gulf Coast gravity schedule
High Island (Apr. 11, 1932)†.....
.....See Gulf Coast gravity schedule

*Gulf Refining Co. †Magnolia Petroleum

(Continued on Next Page)

Crude Oil Gravity Table

	Kansas and Oklahoma	North and Central Texas	East Central Texas	Gray County, Texas	Carson and Hutchinson Counties, Texas	Salt Creek and LaBarge, Wyoming	North Louisiana and Arkansas	Gulf Coast (Texas-Louisiana)	Cameron, Meadows, Louisiana	Iowa and Lockport, Louisiana
	1	2	3	4	5	6	7	8	9	10
Below 25 degrees	....	....	$.67	....	....	....	$.68	$.80	$.70	$.80
25-25.9 degrees	....	....	.67	....	....	....	.70	.81	.71	.81
26-26.9 degrees	....	....	.67	....	....	....	.72	.82	.72	.82
27-27.9 degrees	....	....	.67	....	....	....	.74	.83	.73	.83
28-28.9 degrees	....	....	.76	....	....	....	.76	.84	.74	.84
Below 29 degrees	$.76	$.76	....	....	....	$.76	....	....	....	....
29-29.9 degrees	.78	.78	.78	....	....	.78	.78	.85	.75	.85
30-30.9 degrees	.80	.80	.80	....	....	.80	.80	.86	.76	.86
31-31.9 degrees	.82	.82	.82	....	....	.82	.82	.87	.77	.87
32-32.9 degrees	.84	.84	.84	....	....	.84	.84	.88	.78	.88
33-33.9 degrees	.86	.86	.86	....	....	.86	.86	.89	.79	.89
34-34.9 degrees	.88	.88	.88	$.76	$.66	.88	.88	.90	.80	.90
35-35.9 degrees	.90	.90	.90	.78	.68	.90	.90	.91	.81	.91
36-36.9 degrees	.92	.92	.92	.80	.70	.92	.92	.92	.82	.92
37-37.9 degrees	.94	.94	.94	.82	.72	.94	.94	.94	.84	.94
38-38.9 degrees	.96	.96	.96	.84	.74	.94	.96	.96	.86	.96
39-39.9 degrees	.98	.98	.98	.86	.76	.94	.98	.98	.88	.98
40 degrees and over.	1.00	1.00	1.00	.88	.78	.94	1.00	1.00	.90	1.00

Note—Magnolia Petroleum Co.'s prices in Oklahoma, North Texas and Central Texas, effective April 1, are the same as above given in Columns 1 and 2, excepting that the schedule begins with below 28 degrees, 67 cents; 28-28.9 degrees, 76 cents. The Empire Pipe Line Co. met the Magnolia prices in Kansas and Oklahoma; the White Eagle Oil Corp. in Kansas and the Pure Oil Co., in Oklahoma.

Column 1—Effective April 1, 1932, Continental Oil Co. in Oklahoma and Kansas; Barnsdall Refineries, Inc., and Standish Oil Co. (Phillips Petroleum Co.), in Oklahoma and Kansas; Skelly Oil Co., Kanotex Refining Co., Derby Oil Co., Vickers Petroleum Co., in Kansas; Magnolia Petroleum Co. and Pure Oil Co., in Oklahoma (see note above); White Eagle Oil Corp., in Kansas (see note above); The Texas Company in Oklahoma. Effective April 11, 1932, Stanolind Crude Oil Purchasing Co. in Oklahoma and Kansas; Gypsy Oil Co., Mid-Continent Petroleum Corp., Champlin Refining Co., Eason Oil Co., Pepper Gasoline Co. and Carter Oil Co. in Oklahoma. Carter Oil Co.'s schedule begins at below 25 degrees, 68 cents, with 2 cents added for each degree upward.

Column 2—Continental Oil Co., effective April 1, in North Texas only; followed on same day by The Texas Company in North and Central Texas; Magnolia Petroleum Co. in North and Central Texas (see note above); effective April 11, the Humble Oil & Refining Co., Gulf Pipe Line Co. and Stanolind Crude Oil Purchasing Co.

Column 3—Effective April 1, 1932, the Magnolia Petroleum Co., effective April 11, 1932, Humble Oil & Refining Co.

Column 4—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, the Philtex Oil Co. (Phillips Petroleum Co.), but its schedule was carried down to below 30 degrees at 66 cents, with 2 cents added for each degree upward. Effective April 11, other companies met Continental schedule.

Column 5—Effective April 1, 1932, Magnolia Petroleum Co., effective April 2, Philtex Oil Co., excepting that latter company carried its schedule down to below 30 degrees at 56 cents, with 2 cents added for each degree upward. Effective April 11, Continental Oil Co. and Gulf Pipe Line Co. met Magnolia Petroleum Co. prices.

Column 6—Midwest Refining Co., effective April 11, 1932.

Column 7—The Texas Company, effective April 1, 1932; Magnolia Petroleum Co., effective April 6, 1932; Standard Oil Co. of Louisiana, Louisiana Oil Refining Co., Stanolind Oil & Gas Co. (in Pine Island and Pleasant Hill and in Marion County, Texas) and Gulf Refining Co., effective April 11, 1932.

Column 8—The Texas Company, effective April 1, 1932; Sun Oil Co., April 1, 1932; Humble Oil & Refining Co., effective April 11, 1932; Gulf Pipe Line Co., effective April 11, 1932. Gulf's gravity scale ends with a top of 35 and above at 91 cents. Humble Oil & Refining Co., effective July 18, 1932, posted following prices for Conroe crude: 35-35.9 degrees, 90 cents; 36-36.9 degrees, 92 cents; 37-37.9 degrees, 94 cents; 38-38.9 degrees, 96 cents; 39-39.9 degrees, 98 cents; 40 and above, $1.

Column 9—Magnolia Petroleum Co., effective April 6, 1932.

Column 10—Magnolia Petroleum Co., effective April 6, 1932.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

August 9, 1932

TAXES

The gasoline quotations given in the following tables include the 1-cent Federal tax as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 2 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 2 cents above the service station price for the regular grade.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Chicago	17.1	17.1	4.0	10.6
Decatur, Ill.	17.6	17.6	4.0	10.1
E. St. Louis	16 9	16.9	4 0	9.3
Joliet	17.6	17.6	4.0	10.1
Peoria	17.6	17.6	4.0	10.1
Quincy	17.4	17.4	4.0	9.9
Davenport, Ia.	17 7	17 7	4 0	10.4
Des Moines	17.7	17 7	4 0	10.4
Keokuk	17.7	17.7	4.0	10.4
Sioux City	17.3	17.3	4.0	10.0
Duluth, Minn.	18 7	18.7	4 0	11.0
Mankato	16.3	16.3	4.0	9.7
Minneapolis	18.4	18.4	4.0	11.0
LaCrosse, Wis.	19.4	19 4	5.0	11.1
Milwaukee	18.3	18 3	5.0	10.0
Madison	18 5	18 5	5.0	10.2
Detroit, Mich.	13.6	12.6	4.0	10.6
Grand Rapids	17 5	17.5	4.0	10.3
Saginaw	16.6	16.6	4.0	10.6
Evansville, Ind.	18.2	18.2	5.0	9.9
Indianapolis	18.4	18.4	5.0	10.1
South Bend	18.7	18.7	5.0	10.4
Fargo, N. D.	20.1	20.1	4.0	13.0
Huron, S. D.	19.5	19.5	5 0	11.8
Sioux Falls	19.0	19.0	5.0	11.5
K. C., Mo.*	15.1	15.1	4.0	8.7
Springfield*	17.1	17.1	4.0	8.0
St. Louis*	16.6	16.6	4 0	9.4
St. Joseph*	16.7	16.7	4.0	7.5
Wichita, Kans.	15.9	15.9	4.0	7.0
Bartlesville, Ok.	15.5	15.0	5.0	9.0

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

A third grade of gasoline, "Stanolind Blue," is sold at all major points at a price 1½ cents or more below the price on the regular grade shown above.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 3 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

Stanolind Furnace Oil in Chicago

Effective July 1, 1932, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 6 cents; No. 2 (30-34 stw. zero), 150 gallons or more, 5.50 cents; No. 3 (22-26 zero), 300 gallons or more 4.75 cents; No. 4 (13-16 zero), 400 gallons or more, 4 cents. Viscosity of No. 4, 90-115 at 100° F.

Fuel Oils
Chicago Oil Heat Institute Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively: 28-40, 6 cents and 7½ cents; 32-36, 5½ cents and 7 cents; 28-30 4¾ and 6¼ cents; 24-26, 4¼ cents and 5¼ cents; 18-22, 4 cents and 5 cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

Nebraska
STANDARD OIL CO. (NEBRASKA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Omaha	16.9	17.9	5.0	10.25
McCook	19.0	19.0	5.0	11.75
Norfolk	18.75	18.75	5.0	10.75
N. Platte	19.0	19.0	5.0	11.5
Scottsbluff	19.0	19.0	5 0	11.25

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

Southern District
STANDARD OIL CO. (KENTUCKY)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlanta, Ga.*	22.0	22.0	7.0	11.0
Augusta	21.0	21.0	7.0	13.5
Macon	22.0	22.0	7.0	13.0
Savannah	20.0	20.0	7.0	12.5
Birm'ham, Ala.	21.0	21.0	7.0	11.0
Mobile	20.0	20 0	7.0	8.0
Montgomery	22.5	22.5	7.0	13.5
Jackson, Miss.	20.0	20 0	7 0	10.0
Vicksburg	20.0	20.0	7.0	10.5
Jack'ville, Fla.	20.0	20.0	8.0	13.5
Miami	22.0	22.0	8.0	12.5
Pensacola	22.5	22.5	8.0	12.5
Tampa	21.0	21.0	8.0	10.0
Lexington, Ky.	18.5	18.5	6.0	10.5
Covington	19.0	19.0	6.0	10.5
Louisville	18.0	18.0	6.0	10 5
Paducah	19.5	19.5	6.0	8.0

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

Rocky Mountain District
CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Denver, Colo.	18.0	21.0	5.0	12.5
Pueblo	18.0	21.0	5.0	12.5
Grand Jctn.	20.0	23.0	6.0	14.5
Casper, Wyo.	17.0	20.0	5.0	10.0
Cheyenne	18.0	21.0	5 0	11.5
Butte, Mont.	20.0	23.0	6.0	17.0
Billings	23.0	26.0	6.0	16.5
Great Falls	23.0	26.0	6.0	17.0
Helena	22.0	25.0	6.0	17 0
Salt Lake, Utah	19.0	22.0	5.0	16.0
Albu'que, N. M.	18.0	21.0	*7.0	14.0
Boise, Idaho	22.5	25.5	6.0	18.0
Twin Falls	22.5	25.5	6.0	18.0

*One-cent city tax.

Southwestern District
MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Dallas, Tex.	15.5	18.0	5.0	7.0
Fort Worth	16 5	18 0	5.0	9.0
Houston	15.5	18.0	5.0	10.0
San Antonio	15.5	18.0	5.0	9 0
El Paso	15 5	19 0	5.0	12.0
Texarkana	*19.5	*19 5	5.0	†11.0
Muskogee, Ok.	14.5	17.0	5.0	8.0
Okla. City	14.5	17.0	5.0	8.0
Tulsa	15.5	18.0	5.0	8 0
Ft. Smith, Ark.	*17.0	17.0	7.0	†9.0
Little Rock	*19.0	*19.0	7.0	†11.0

One-cent rebate made from posted station prices to cash purchasers in Louisiana, Arkansas and Tennessee.

*Less 2½ cents to dealers. †Less 2 cents to dealers.

Central South District
STANDARD OIL CO. (LOUISIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
N. Orleans, La.	19 0	19 0	*7.0	†11.0
Baton Rouge	18.0	18.0	6.0	†10.0
Alexandria	19 0	19.0	*7 0	†10.0
Lafayette	19 0	19 0	*7.0	†10 0
Lake Charles	19.0	19.0	*7 0	†10 0
Shreveport	18.0	18.0	6.0	†10.0
Knoxville, Tenn	22.0	22.0	8.0	11.5
Memphis	20.5	20.5	8.0	9.0
Chattanooga	22.0	22.0	8.0	11.5
Nashville	21.5	21.5	8.0	11.0
Bristol	22.5	23.5	8.0	12.0
Lt. Rock, Ark.	19.0	19.0	7.0	9.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

†Kerosene prices in Louisiana include 1-cent tax except New Orleans where tax is 2 cents.

Two-cent discount off gasoline and kerosene tank wagon price to dealer and commercial accounts.

Pennsylvania-Delaware and Part of New England
ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Pittsburgh, Pa.	17.5	18.5	4.0	11.0
Philadelphia	16.5	17.5	4.0	11.0
Scranton	17 5	18.5	4.0	11.0
Allentown	17.5	18.5	4.0	11.0
Altoona	17.5	18.5	4.0	11.0
Erie	17.5	18.5	4.0	11.0
Dover, Del.	17.5	18.5	4.0	11.0
Wilmington	17.5	18.5	4.0	11.0
Springf'd, Mass.	17.5	18.5	4 0	8.0
Worcester	17.5	18.5	4.0	8.0
Boston	13.5	14.5	4.0	8.0
Providence, R.I.	12.5	13.5	3.0	9.0
Hartford, Conn.	16.5	17 5	3.0	8.0
New Haven	16.5	17.5	3.0	8.0

Atlantic Coast District
STANDARD OIL CO. (NEW JERSEY)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atl'tic City, N.J.	16.9	17.9	4 0	11.2
Newark	16 2	17.2	4 0	8.5
Annapolis, Md.	18.5	19.5	5 0	10.0
Baltimore	17.9	18 9	5 0	7.0
Cumberland	19 4	20.4	5.0	11 7
Wash'g'n, D. C.	16.4	17 4	3 0	10 0
Danville, Va.	20 6	21 6	6 0	11 J
Norfolk	19.0	20 0	6 0	10.3
Petersburg	20 1	21 1	6.0	11.4
Richmond	19 4	20 4	6.0	10 7
Roanoke	20 6	21 6	6.0	11 9
Charles'n, W.Va.	19.3	20.3	5.0	11.6
Parkersburg	17.9	18.9	5.0	10.2
Wheeling	18.9	19.9	5.0	11.3
Charlotte, N. C.	22.2	23 2	7 0	12 .
Hickory	22.4	23 4	7.0	12 7
Mt. Airy	22 5	23.5	7.0	12.8
Raleigh	22 0	23 0	7 0	12 3
Salisbury	22 3	23 3	7 0	12 6
Charleston, S.C.	20.0	21.0	7.0	10 3
Columbia	21 9	22.9	7.0	12.2
Spartanburg	22.2	23 2	7.0	12 5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and States of Maryland and New Jersey, where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Prices shown above are for standard gasoline.

Pacific Coast Territory
STANDARD OIL CO. OF CALIFORNIA*

	Gasoline			Kero.
	Tank truck†	Posted retail	Incl'ds tax of	tank wagon
Fresno	19.5	18.5	4.0	17.0
San Francisco	19.0	18.0	4.0	15.5
Los Angeles	18.5	17.5	4.0	15.5
Reno, Nev.	25.0	24.0	5.0	19.0
Portland, Ore.	21 0	20.0	5.0	16.5
Seattle, Wash.	22 0	21.0	6 0	16.5
Tacoma	22 0	21 0	6 0	16.5
Spokane	25.5	24.5	6 0	20.5
Phoenix, Ariz.	19.5	21.5	6.0	20.5

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

*Retail prices posted by Standard Stations, Inc., a subsidiary.

New York and Part of New England District
STANDARD OIL CO. (NEW YORK)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Albany, N. Y.	17.0	18.0	4.0	9.0
New York	14.5	14.5	4.0	9.5
Buffalo	17 5	18.5	4.0	9 0
Rochester	17.5	18.5	4 0	9 0
Syracuse	17.5	18.5	4.0	9 5
Boston, Mass.	14.5	14.5	4.0	8.0
Augusta, Me.	18.0	19.0	4.0	9.0
Manch'tr, N. H.	17.5	18.5	5.0	8.0
Burlington, Vt.	18.5	19.5	5 0	8.5

Naphtha

	Tank wagon	Tank car
Oleum spirits	10.7	6.23
V.M.P. naphtha	12.7	7.23
Cleaners' naphtha	15.2	9.23
Stanisol	15.2	9.23

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Ohio
STANDARD OIL CO. (OHIO)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Ohio points	18.0	18.5	5.0	*12.0

Dealers and commercial accounts 2 cents under tank wagon.

*Service station price 13 cents.

TANK WAGON CHANGES

Effective July 30, Standard Oil Co. (Kentucky) reduced kerosene tank wagon price 2 cents at Mobile, Ala. Effective August 3, the company reduced kerosene tank wagon price 2 cents at Jackson, Miss.

PIPE FOR IRAQ LINE

First shipments of pipe from America and Germany, amounting to 4,000 tons, for pipe line of Iraq Petroleum Co. from the Iraq fields to the Mediterranean is reported to have been made. Shipment is destined for Tripoli and Haifa, which will be the terminal of the pipe line.

Crude Oil Prices

(Continued from Preceding Page)

Co. ‡Humble Oil & Refining Co. §The Texas Company. †Yount Lee Pipe Line Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$ .65
Urania, La. (Apr. 12, 1932)	.60
East El Dorado, Ark. (Apr. 6, 1932)	.65
Stephens, Ark., below 29° (Apr. 12, 1932)	.61
Stephens, Ark., 29° and above (Apr. 12, 1932)	.64
Other fields	See gravity table

Note—Smackover, all grades, The Texas Company, April 1, 1932; Magnolia Petroleum Co., April 6, 1932; Standard Oil Co. of Louisiana, Gulf Refining Co. and Louisiana Oil Refining Co., April 11, 1932. Urania posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co.; East El Dorado by Magnolia Petroleum Co., effective April 6, 1932; by Gulf Refining Co., effective April 11, 1932; Stephens, Ark., by Louisiana Oil Refining Co. and Atlantic Oil Producing Co.

South Central and Southwest Texas

Darst Creek (Apr. 1, 1932)*	$ .75
Luling (Apr. 1, 1932)*	.54
Mirando (Apr. 1, 1932)*	.90
Pettus (Apr. 11, 1932)‡	1.00
Salt Flat (Apr. 11, 1932)‡	.75
Thrall§	
Lytton Springs (Lockhart) (Apr. 1, 1932)*	.94
Dobrowolski§	
Same as Mid-Continent gravity scale up to and including 38-38.9°	
Somerset§	
Same as Mid-Continent gravity scale up to and including 38-38.9°	

*Magnolia Petroleum Co., The Texas Company, Humble Oil & Refining Co. posted 10 cents for Mirando, April 11. §Thrall prices same as North Central Texas less 19½ cents per cwt. freight. †Grayburg Oil & Refining Co., Pioneer Oil & Refining Co. and Texas Petroleum Products. ‡Pioneer Oil & Refining Co. ‡Humble Oil & Refining Co.

Middle Western States
OHIO OIL CO.
(Effective April 11, 1932)

Lima	$1.15
Wooster	1.25
Illinois	1.10
Indiana	.75
Princeton	1.10
Plymouth	Shut in
Western Kentucky	1.05
Midland, Mich. (July 13, 1932)*	.85
Muskegon (July 14, 1932)†	Mid-Continent gravity scale
Muskegon (June 30, 1932)‡	.95
Somerset, Ky. (Apr. 25, 1932)	.85
Hart County, Ky. (June 10, 1932)§	1.00

*Posted by Pure Oil Co. Old Dutch Refining Co. pays 20 cents per barrel over Pure Oil Co.'s posted price. †Naph-Sal Refining Co. ‡Old Dutch Refining Co. §Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

Mexico

Panuco*	$0.45

*F.o.b. ship, based on June transactions and exclusive of production and export taxes and bar dues.

Canada

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.56
Crude oil 45-45.9	2.18
Crude oil 50 and above	2.80
Crude naphtha	3.32
Discolored naphtha	3.01

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

NEWS FOR SALES DEPARTMENTS

Changing Date of Car Registrations Would Aid Demand

By shifting the date of motor vehicles from January 1 to July 1, approximately 5,000,000 cars which are now idle the first quarter of the year would be placed in service which would consume 625,000,000 gallons of gasoline, according to the American Petroleum Institute. Under present conditions, the storage of motor vehicles between January 1 and April 1 is encouraged rather than discouraged. The registration date, requiring an outlay of a sizable amount of cash per vehicle, comes shortly after Christmas and post-Christmas bills, after New Year's Day and New Year's Day bills. Moreover, the expenditure must be made during the winter, when living costs are higher and the registration fee, by comparison, seems larger than actually it is.

Not only the passenger car owner, but the operator of business vehicles adversely is affected by the January 1 registration date. General business usually is good in December, but it is largely credit business. The cash does not come in until late January, or early February. Consequently the operator of the business vehicle, and particularly the operator of motor vehicle fleets, is called upon to spend a comparatively large sum in cash for registration at a time when he is least able to do it.

The natural effect resulting from these causes has been apparent for years. From 10 to 52 per cent of motor vehicles registered in the states on December 31 of one year are not registered on April 1 of the next year. Some have worn out, it is true; but most are in dead storage because their owners are unable, or opposed, to spending money for licenses. It is not because of business depression in recent years that this is true. Survey of registration figures for years back reveal a similar condition that is simply accentuated in recent times. For instance, of the 23,551,876 motor vehicles registered on December 31, 1930, in 43 states and the District of Columbia, only 19,412,860 were registered on April 1, 1931. That is a decline of 5,139,016, or 20 per cent. On December 31, 1931, there were 23,023,613 vehicles registered, but on April 1, 1932, only 18,720,486 were registered, a decrease of 5,203,127, or about 22 per cent. And it must be remembered that the April 1 registration includes all the new vehicles sold at the shows or after yearly introduction of new models.

Nor are these declines confined to states where winter weather discourages winter operation of motor vehicles. California's registrations show a decline of 10 per cent, Alabama's of 16 per cent, Virginia's of 22 per cent, Georgia's of 23 per cent, and Texas' of 28 per cent. Declines of 23 per cent or more are shown in Connecticut, Illinois, Kansas, Massachusetts, Ohio and other states. Registrations in New York are off 20 per cent, and in New Jersey off 14 per cent, during these months. North Dakota shows the peak decline of 52 per cent, and there are declines of 42 per cent in Vermont, 37 per cent in Wyoming, 29 per cent in South Carolina, and 32 per cent in South Dakota.

GETS AVIATION ORDER

NEW YORK, Aug. 6.—Deep Rock Oil Corp. has been awarded a War Department contract for 21,000 gallons of aviation gasoline at 5 cents per gallon, exclusive of all taxes, f.o.b. Cushing, Okla. The gasoline is for delivery to Wright Field, Ohio.

Issue New Regulations Covering Sales and Handling of Denatured Alcohol

The commissioner of industrial alcohol, Washington, D. C., has issued new regulations covering the manufacture, storing, shipping and dealing in denatured alcohols. Many of the new regulations are of special interest to operators of filling stations selling the alcohol for radiators. Following are some of the provisions:

"Packages into which completely denatured alcohol has once been placed by a denaturer or other authorized person may not, after such completely denatured alcohol has been removed therefrom, be again used as containers for such product.

"Shipments of completely denatured alcohol in tank trucks or tank wagons shall not be permitted; nor shall shipments in tank cars be allowed.

"Any completely denatured alcohol, sold, or disposed of, or possessed for any purpose, in containers of a capacity of more than 5 wine gallons, must be in serially numbered denaturers' packages with seal intact and bearing all the marks required by these regulations, including the embossed symbol and serial number, except that where such packages may be in the possession of a legitimate user or of a dealer disposing of completely denatured alcohol in quantities of not more than 5 wine gallons, the seals of such number of packages, as may be necessary for ordinary business requirements, may not be broken in order to permit such use or sale.

"Dealers in and manufacturers using (but not recovering for reuse) formulas of completely denatured alcohol now authorized to be produced by denaturers will not be required to obtain permit, but all persons dealing in, storing, or using 11 bbls. or drums (not exceeding 550 wine gallons) or more of completely denatured alcohol in a period of 30 days must keep such records of the receipt, storage, and disposition of such completely denatured alcohol, including the symbol and serial number embossed on the packages, as will enable any government officer to trace such receipts, storage and disposals, which records must at all times during regular business hours be open to inspection by government officers; provided, however, that where sales are made in quantities of 5 wine gallons or less such records will be required to show only the total quantity disposed of daily in this manner.

"Dealers will not be permitted to transfer completely denatured alcohol from original packages to other packages or containers, except where the packages to which transfer is made have a capacity of not more than 5 wine gallons.

"Every package of completely denatured alcohol compounded on or after January 1, 1931, containing 5 wine gallons or less sold or offered for sale by denaturers or dealers, must have affixed thereto a label on which must be printed in plain legible letters (red on white) the words, 'Completely Denatured Alcohol,' and, in addition, on the same label, there shall be printed in large letters, in red ink, the following statement: 'Completely denatured alcohol. Contains ingredients which render the product wholly unfit for beverage purposes. If taken internally will cause serious consequences to health.'

"The word 'Pure' qualifying denatured alcohol will not be permitted to appear on any label. The name and address of the dealer must be printed on such label but no other extraneous matter will be permitted thereon without the express authority of the commissioner.

"It is a violation of Section 17 of Title 2 of the National Prohibition Act to advertise by means of signs, posters, etc., in or about places of business that 'alcohol' is for sale, without any qualifying words such as 'denatured' or 'completely denatured.'"

Urges Limiting the Building of Stations Along Highways

Alex W. Muir, superintendent of maintenance, has recommended to the New Jersey Highway Commission that steps be taken to limit the building of gasoline filling stations along the main highways. He stated that mushroom growth of the stations has frustrated the roadside beautification program of the department.

Mr. Muir, after pointing out that there is no authority lodged with the department to regulate the types of buildings on private land, suggests that power should be vested with some agency to limit and control further increases. During 1931, he pointed out, a total of 609 applications were received for permission to construct entrances to various roadside buildings.

"The last year," Mr. Muir asserted in referring to gasoline stations, "instead of showing a decrease in the establishment of such places of business has actually seemed to show an abnormal increase.

"This division has been at times almost swamped with applications for permits for the construction of entrances to gasoline filling stations and other places of business catering to the motoring public. Through vigorous work, this division has been enabled to prevent many encroachments upon the highway rights of way and has furthermore been able to improve the appearance of the entrances thereto.

"The department, of course, has no control over the type of structure or the manner in which the business is conducted. Many of these places, particularly along the newer trunkline highways, present an appearance which is, to say the least, unattractive. While the municipalities in which they are located have, perhaps, gained some increase in ratables through the so-called improvements made, in the opinion of many thinking people the establishment of such places of business has really been more of a liability than an asset.

"In accordance with the urging of many organizations and the sanction of the legislature, the department is attempting to beautify the roadsides of the state highway system. The haphazard and almost uncontrolled establishment of hideous and unkempt gasoline filling stations and roadside stands is, in many sections, ruining in a single year the appearance of more miles of roads than the department can hope to improve in several years.

"In addition to this, however, articles, which have come to my attention indicate to me that the establishment of these large numbers of new gasoline filling stations involves a serious and tremendous economic waste not only to the companies manufacturing motor supplies, but to those operating the stations."

Gasoline Dealers Allege New York Companies Unfair

The Gasoline Dealers' Association, Inc., of New York City last week petitioned United States Attorney George Z. Medalie to restrain major distributors in that city in practices alleged to be in restraint of trade and commerce. The petition of the association has been forwarded to the Attorney General's Department at Washington, D. C., for consideration.

The action follows a period of several months in which retail gasoline markets in New York City have been disturbed. There has been considerable price cutting on the part of independent dealers, and it was alleged that there has been tax evasion on the part of many small jobbers. Recently the major distributors reduced the gasoline tank wagon and service station prices to 14.5 cents in New York City including a state tax of 3 cents and a Federal tax of 1 cent.

Margins to dealers were reduced at the same time.

The petition sets forth that after thorough investigation by its advisory committee the association has concluded that an attempt is being made to destroy competition and that on May 21, last, the "major gasoline companies" entered into an agreement to eliminate and destroy independent dealers. The petition alleged that since May 21, last, retail dealers in gasoline have been unable to go into the open market and buy gasoline where they desired, regardless of which producer they usually patronized.

Finds 15-Cent Motor Oils Not Wanted by Consumers

The 15-cent lubricating oil is not being met with favor, according to the observations of C. M. Sutherland, secretary of the Nebraska Petroleum Marketers. In the current issue of the association's bulletin Mr. Sutherland writes:

"We have been watching with a great deal of interest the reaction of the motorist in the Standard of Indiana territory in offering to the motorist a 15-cent lubricating oil.

"Reports that we have from a number of diversified interests indicate that the sale of this cheap oil is not a success. In this territory companies that have refused to shake the confidence of their customers by offering this cheap grade of oil are finding that their sales have been greatly increased.

"Since the motorist becomes confused when he is offered a quart of motor oil at one-half the price of another quart, it is quite a strain upon his confidence in the marketer not to think that in some manner he is being flimflammed by such a wide spread in posted prices. He asks 'What have you done to make it so cheap?', or 'What has been left undone?' Naturally he is drawn to the operator who offers grades of motor oil at prices he can understand."

NEW YORK GALLONAGE LESS

NEW YORK, Aug. 6.—Sales of gasoline in New York State during May totaled 142,795,417 gallons, a decline of approximately 4,500,000 gallons from the May, 1931, total, according to figures compiled by Thomas M. Lynch, commissioner of taxation and finance. May sales last year totaled 147,269,235 gallons, and compared with 137,714,711 gallons in May, 1930, and 107,489,287 gallons in May, 1929. The total for April this year was 123,768,937 gallons.

NEWS FOR PETROLEUM REFINERS

Chemists Have Interesting Program for Denver Meet

An exceptionally strong program has been prepared for the Petroleum Division of the American Chemical Society which will hold its eighty-fourth meeting at Denver, Colo., August 22 to 26. The papers will be of special interest to those engaged in research and development work concerned with the manufacture and utilization of petroleum products.

Carl R. Wagner, chief chemist of the Pure Oil Co., is chairman of the petroleum division and will preside at the meetings. A number of petroleum chemists in all parts of the country have indicated their intention to attend the meeting. Following are some of the papers which will be presented:

"Vapor Phase Cracking," by H. P. A. Groll.

"Thermal Decomposition of Isobutane into Primary Products," by Max Neuhaus and L. F. Marek, Research Laboratory of Applied Chemistry, Massachusetts Institute of Technology.

"The Computation of Distillation Apparatus for Hydrocarbon Mixtures," by E. W. Thiele and R. L. Geddes, Standard Oil Co. (Indiana).

"Significance of the A.S.T.M. Distillation Curve," by M. G. Blair and R. C. Alden, Phillips Petroleum Co.

"The Measurement of the Gum Stability of Gasoline," by T. H. Rogers, J. L. Bussies and P. T. Ward, Standard Oil Co. (Indiana).

"Control of Gum Formation in Gasoline by the Use of Antioxidants," by T. H. Rogers and Vandeveer, Standard Oil Co. (Indiana).

"Inhibitors in Cracked Gasoline," by C. D. Lowry, Jr., Gustav Egloff, J. C. Morrell and C. G. Dryer, Universal Oil Products Co.

"Products of Commercial Scale Gas Cracking," by Walter J. Podbielniak.

"Total Heats of Certain Gas Oils at Elevated Temperatures and Pressures," by W. W. Gary and L. C. Rubin, Gasoline Products Co., and J. T. Ward, M. W. Kellogg Co.

COMPLETE TRANSMISSION LINE

The Midwest Refining Co. has completed the construction of a high tension line from its Salt Creek, Wyo., power plant to its Casper, Wyo., refineries. The refineries are operated by the Standard Oil Co. (Indiana) of which the Midwest is a subsidiary.

The power plant was built in the Salt Creek Field several years ago to furnish electric power for drilling and the operation of leases. Recently the plant has had excess capacity and the management decided to build the line to Casper a distance of approximately 40 miles at a cost of $150,000. The line will furnish a large part of the power required by the Casper refineries.

MONTREAL IMPORTS GAIN

Due to contruction of new refineries petroleum and gasoline are now included among the most important commodities handled through the Port of Montreal. To the end of June the amount of petroleum and gasoline landed totaled 559,368 tons, or 130,796 tons higher than the corresponding period last year.

MOON PLANT OPERATING

The Moon Refining Co. is now operating a 300-bbl. local skimming plant at Graham, Tex. The plant has a capacity of 300 bbls. of crude oil daily and is now refining 100 bbls. M. R. Hemphill is superintendent of the refinery.

43.3 Per Cent of World's Tonnage of Ships Now Use Petroleum as Fuel

The world tonnage of steamers, during the 12 months ended with June 30, 1932, decreased 961,604 gross tons; that of motor vessels increased 606,944 tons; and sailing vessels and seagoing barges decreased 42,070 tons, resulting in a net decrease of 396,730 tons in the total world tonnage of ships, according to the recently issued 1932-1933 edition of Lloyd's Register. The world tonnage of ships, as reported for June 30, 1932, was 69,734,310 tons, in comparison with 70,131,040 tons of the preceding year.

Vessels equipped to use oil as fuel under boilers or in internal combustion engines constituted 43.3 per cent of the world tonnage; coal burning vessels made up 54.8 per cent; and sailing vessels and barges the remaining 1.9 per cent. The rapid strides made in the use of oil as a ship's fuel is shown by a comparison with 1914, when coal burning vessels formed 88.8 per cent of the total; sailing vessels and barges 8 per cent; and ships using oil the remaining 3.2 per cent. Motor vessels, those using oil in internal combustion engines, increased from 0.5 per cent of the world tonnage in 1914 to 14.4 per cent in 1932, while steamers fitted for burning oil under boilers increased from 2.7 per cent in 1914 to 28.9 per cent in 1932. In comparison with 1931, coal burning vessels decreased from 56 per cent of the total tonnage to 54.8 per cent, while oil-using vessels increased from 41.9 per cent to 43.3 per cent, sailing vessels and barges declining from 2.1 per cent to 1.9 per cent.

The world tonnage of steamers and motorships, as of June 30, are divided in Lloyd's Register as follows:

	1932		1931	
Steamers—	No.	Gross tons	No.	Gross tons
Reciprocating engines	24,138	49,068,098	24,489	50,194,250
Turbine engines	1,272	9,231,289	1,277	9,065,619
Motorships	3,100	9,760,488	2,829	9,158,424
Auxiliary power:				
Steam	102	30,377	106	31,508
Motor	1,320	277,889	1,251	273,009
Total steamers and motorships	29,932	68,368,141	29,952	68,722,801
Sailing vessels	....	1,366,169	....	1,408,239
Total world tonnage		69,134,310		70,131,040

Of the total tonnage reported above, 23,379,999 tons in 1931 and 22,784,383 tons in 1932 were owned in the British Empire and 13,642,183 tons in 1931 and 13,546,620 tons in 1932 were owned in the United States. Steamers fitted to burn oil under boilers numbered 3,908 in 1932, with a total tonnage of 20,135,006 tons, as compared with 3,914, with a total tonnage of 20,002,307 tons, in 1931. The 1932 registrations were divided among countries as follows:

Steamers Fitted for Burning Oil Fuel, 1932

Country—	Number	Gross tons
Great Britian and Ireland	852	5,447,965
Canada	99	296,934
Other British dominions	147	392,908
United States	1,590	8,134,196
Belgium	7	30,191
Danzig	2	16,265
Denmark	23	62,845
France	149	912,879
Germany	59	778,679
Holland	158	918,989
Italy	135	930,545
Japan	103	616,638
Norway	225	779,769
Russia (U.S.S.R.)	9	24,416
Spain	27	128,193
Sweden	14	56,800
Others	246	606,788
Total	3,908	20,135,006

The United States, with 8,134,196 gross tons, or 40.4 per cent of the world total, leads in the number of oil burning vessels registered, while the British Empire, with 6,137,807 tons, owns 30.5 per cent; and the remainder of the world, with 5,863,003 tons, owns 29.1 per cent.

The number and tonnage of oil burning tankers, of 1,000 tons and over, increased during 1932, the gain being in motorship. The lower table records, by countries, the number and tonnage of oil burning tankers, divided into steamers and motorships.

OIL-BURNING TANKERS, 1,000 TONS AND OVER, JUNE 30, 1932

	Steam		Motorships		Total	
Countries where owned	No.	Tons	No.	Tons	No.	Tons
Great Britian and Ireland	279	1,494,665	114	821,760	393	2,316,425
Canada	17	45,312	8	82,446	25	127,758
Other British dominions	22	136,709	2	2,662	24	139,371
United States	333	2,200,771	60	317,773	393	2,518,544
Belgium	1	4,733	8	55,615	9	60,348
Danzig	2	16,265	25	261,446	27	277,711
Denmark	3	17,871	9	66,579	12	84,450
France	32	185,397	6	35,903	38	221,300
Germany	17	68,834	12	68,143	29	136,977
Holland	42	135,049	37	199,555	79	334,604
Italy	66	310,767	11	56,254	77	367,021
Japan	10	63,387	10	59,050	20	122,337
Norway	79	539,301	138	999,547	217	1,539,348
Russia (U.S.S.R.)	2	2,686	14	80,265	16	82,951
Spain	5	15,692	10	59,188	15	77,880
Sweden	0	0	17	141,369	17	141,369
Other countries	59	221,292	8	39,135	67	260,427
Total June 30, 1932	969	5,462,131	489	3,346,690	1,458	8,808,821
Total June 30, 1931	987	5,535,920	452	3,013,907	1,439	8,549,827

NEW UNIT AT CYRIL REFINERY

The Anderson-Prichard Oil Corp. of Oklahoma City has closed a contract with the Winkler-Koch Engineering Co. for the construction of a 1,500-bbl. vacuum distillation unit at its Cyril, Okla., refinery. The company expects to start construction in a few weeks and have the unit in operation before the end of the year.

BUILD VACUUM UNIT

The Kendall Refining Co. has completed arrangements for the construction of a vacuum distillation unit at its Bradford, Pa., refinery. The unit will be used in the manufacture of special grades of lubricating oils. It will adjoin a similar unit installed last year and will be built by the Alco Products, Inc.

Lub Oils and Gasoline Sold to Cities Exempt from Tax

WASHINGTON, D. C., Aug. 6.—Replying to a letter asking whether the tax on gasoline imposed by the Revenue Act of 1932 applies to purchases made by municipal corporations the Bureau of Internal Revenue answered as follows:

"You are advised that articles sold by the manufacturer direct to a state or political subdivision for use in the exercise of an essential governmental function are not taxable provided they are paid for out of state or municipal treasury. If the articles (except firearms and ammunition) are sold through a jobber or intermediary the tax attaches even though the manufacturer has knowledge that the articles are destined for ultimate use by a state or political subdivision."

This ruling is bringing numerous complaints from independent jobbing interests throughout the country including jobber associations. It is claimed that the ruling places the jobbers at a disadvantage in bidding for municipal business. The jobber pays the refiner source of supply a 1-cent tax on gasoline and 4 cents on lubricating oils and must include this in any bid he makes for the municipal business. The refiner at the same time under the conditions outlined in above statement is exempt from the tax.

FLETCHER SUES RICHFIELD

The Fletcher Oil Co. of Boise, Idaho, which operates a large chain of service stations in Oregon, Washington and Idaho, has filed suit in Federal Court at Portland, Ore., against the Richfield Oil Co. alleging failure to carry out contract. The petition states that on March 1 the Richfield company entered into a contract with the plaintiff agreeing to furnish 3,000,000 gallons of gasoline at a price of 5½ cents f.o.b. Portland. It is alleged that only 500,000 gallons were delivered on the contract.

FRANK BROWN DIES

Frank Brown, aged 78, for several years engaged in the oil business in the Mid-Continent area, died at his home in Kansas City July 25. It was incorrectly stated in August 4 issue of The Oil and Gas Journal that Frank Jones had died on that date. Frank E. Jones, a stepson of Mr. Brown, lives in Kansas City. Roy B. Jones of Wichita Falls, Tex., president of the Panhandle Refining Co., also was a stepson of Mr. Brown and was engaged in business with him for several years.

SMALL PLANT AT WINNIPEG

WINNIPEG, Manitoba, Aug. 6.—Work is reported starting on erection of a small oil refinery on Harbison Avenue, Elmwood section of Winnipeg for the Direct Oil Refinery, Ltd. The construction work, it is stated, will cost $30,000 and will include erection of an office building, still, boiler, steel tanks and piping, multiple deck fractionating bubble tower, etc. The plant is to be completed about August 15.

BUILD SIBERIAN REFINERY

NEW YORK, Aug. 6.—The Soviet oil trust is building its first oil refinery destined to supply Siberia and the Far East at Khabarovsk. The plant will make kerosene and gasoline, running on crude from the Sakhalin fields. Capacity of the new refinery will be 750,000 tons per year, and on its completion the Soviet oil syndicate will no longer need to ship oil to Siberia, which should materially ease the drain on the Siberian railways.

NATURAL GASOLINE MANUFACTURE

Natural Gasoline Prices Failing to Hold Pace This Year

Natural gasoline prices have failed thus far this year to show the improvement that has accompanied the retail gasoline price, refinery gasoline or crude as shown in the accompanying graph. Also, there has been a wider differential in price between refinery U. S. Motor gasoline and the 26-70 grade of natural gasoline. This differential has approximated 2 cents for nearly three months and at no time in recent years has such a wide differential existed over such a long period. To further emphasize the weak condition of the natural market in the past three months it may be seen that the average price of natural has approximately only half of the refinery motor price.

The most encouraging factor in the comparison of the various prices is the upward trend in the gasoline retail price. This line represents the average of the filling station prices on the regular grade of gasoline, free of tax, in 50 cities scattered over the United States.

In a similar manner the crude market has improved gradually since the middle of July a year ago. The subsequent legalizing of the principle of controlling production to demand places that market in a favorable position to at least hold these gains and promises to further improve with any hint of a material natural decline in the East Texas fields output.

A factor which is recognized as detrimental to the natural gasoline market, but which is cause of debate in its solution, is that of the dependency of the natural gasoline industry on the refining industry for the disposition of most of the natural gasoline produced. If independent sales outlets had been established for the low vapor pressure grades several years ago, some contend the natural gasoline market would have benefited during the present period of low consumption. Those who advocate this practice point to the success of the natural gasoline industry in selling an increasing volume of 11-pound natural direct to jobbers as a basis for concentrated efforts in this direction.

In fact, strong consideration is being given by the natural gasoline industry to establishing adequate specification to cover the low vapor pressure grades of stabilized natural for use as a motor fuel.

No Special Regulations Made to Clarify Collection of 1-Cent Federal Tax

For the time being at least, there will be no special regulations covering the procedure manufacturers are to follow regarding the collection and payment of the 1-cent Federal tax. In a letter received from Ralph E. Smith, acting commissioner of the Internal Revenue Department, the interpretation of original law is given regarding questions placed before the commission by the Natural Gasoline Association of America and the letter further states the reason for the commission's refusing to issue separate recommendations even though such a request was originally made by the association. Mr. Smith's letter follows:

"Reference is made to your letter of July 18, with which you enclosed a mimeographed copy of a memorandum on 'Natural Gasoline' left with this office recently by your committee. The purpose of your letter and the enclosure therewith is to obtain a ruling on the question of the taxability of natural gasoline (a liquid product extracted from natural gas) under Section 617 of the Revenue Act of 1932.

"In reply you are advised that Section 617 of the act, after making provision for the imposition of a tax on gasoline sold by the importer thereof or by a producer of gasoline, provides in part as follows:

"(c) (2) the term 'gasoline' means gasoline, benzol, and any other liquid the chief use of which is as a fuel for the propulsion of motor vehicles, motor boats or airplanes.

"Reading the statute as a whole, it is evident that it was the legislative intent to impose a tax on sales of what is commonly and commercially known as gasoline which is chiefly used as a fuel for the propulsion of motor vehicles, motor boats or airplanes and, in order to equalize tax on competitive articles, a like tax was also imposed on all products whose chief use is as such a fuel and which may be sold in competition with motor fuel gasoline. Therefore, 'natural gasoline' which has not reached a stage of compounding, blending or processing whereby it is suitable for use as a fuel for the propulsion of motor vehicles, motor boats or airplanes is not subject to the tax. However, any person who further produces, compounds, blends or processes such a product sufficiently to make it suitable for use as a motor fuel is a 'producer of gasoline' within the meaning of Section 617 of the Revenue Act of 1932 and the sale or use of such gasoline by such 'producer' or by an importer is taxable as provided in the above-named section of the act and Articles 43 to 47, inclusive, of Regulations 44, approved June 18, 1932.

"Your recommendation that special regulations be promulgated for the application of the tax as it applies to natural gasoline has been considered. In regard thereto you are advised that the necessity for such additional regulations is not apparent since sales and uses of natural gasoline, after it has reached a stage of compounding, blending or processing where it is suitable for use as a fuel for the propulsion of motor vehicles, motor boats or airplanes, are subject to the same regulatory requirements as gasoline manufactured or refined from other sources. The tax imposed by Section 617 of the act on 'gasoline' suitable for use as a fuel for the propulsion of motor vehicles, motor boats or airplanes attaches to sales and uses thereof by the producer or importer and the ultimate destination or actual use of such product does not affect the application of the tax. Articles 45 and 46 of Internal Revenue Regulations 44 cover such matters as sales to producers, compounders, blenders and/or brokers for further processing, compounding or blending, and uses of gasoline by a producer or importer. The difficulties referred to in your memorandum with respect to sales of natural gasoline to producers, compounders, blenders and/or brokers and losses arising from further production, etc., are confronted by all producers of taxable gasoline, the difference probably being only in the degree of such difficulties. The correction of such conditions appears to be a matter over which the Bureau of Internal Revenue has no means of control."

Texas Commissioners To Hear New Report Panhandle Gas Field

AMARILLO, Tex., Aug. 9.—Natural gasoline and natural gas producers in the Panhandle area of Texas will hear the report of a committee of engineers Wednesday in Austin as it is read before the Texas Railroad Commission as a part of the efforts being made to equitably settle the question of taking gas from the common gas reservoirs in this area. The final meeting in preparation for the hearing was held by the engineers here Saturday.

A three-judge Federal Court ruling several weeks ago declaring the common purchaser law, so far as applied to natural gas, to be unconstitutional has precipitated differences between major and independent gas producers in the Panhandle that so far have been unwieldy to arbitration.

Independent gas producers, owning about 20 per cent of the proven acreage and nearly 50 per cent of the completed wells, have asked permission to use their production in manufacture of natural gasoline.

Major gas companies, contending that equal withdrawals of gas on a per well basis would be unfair to owners of 80 per cent of the acreage, assert that unrestricted production from independent properties for use in natural gasoline plants would create waste and damage through drainage.

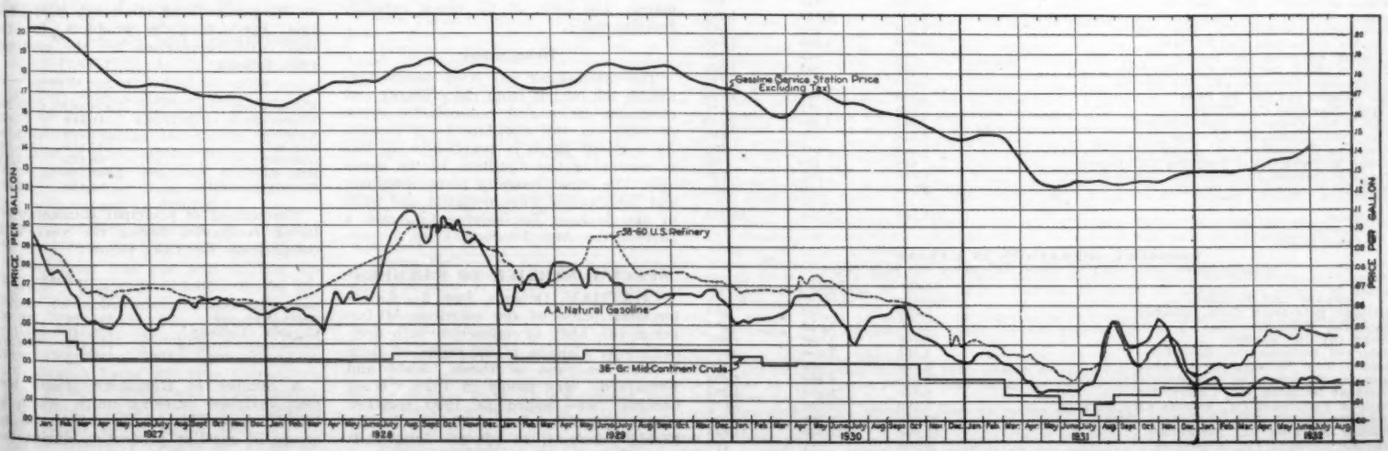
It is understood that the Railroad Commission is considering issuance of a gas conservation order that deviates to some extent from contentions of both independents and majors.

Previously Governor Sterling had said that if an agreement was not reached which seemed equitable the legislative bodies of the State would be asked to pass laws to govern such cases. Because of the seriousness of the problem, it is likely that a bill will be presented on the subject even though the present discussions before the commission lead to an agreement among all parties.

JOIN CALIFORNIA ASSOCIATION

LOS ANGELES, Calif., Aug. 8.—R. D. Bush, state supervisor of oil and gas and Harlan R. E. Jones, with the Superior Oil & Gas Co. have joined the California Natural Gasoline Association.

Comparison of Natural Gasoline Prices in Mid-Continent District With Average Retail and Refinery Gasoline Prices



Mid-Continent Refiners Holding Crude Runs to Demands

(Continued from Page 8)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Tidal Refining Co., Drumright	15,000	5,000	5,000
Western Oil Corp., Beckett	2,000	(*)	(*)
White Oak Corp., Allen	8,000	(*)	(*)
Wilcox Oil & Gas Co., Bristow	5,886	3,500	3,500
Wirt Franklin Petroleum Corp., Ardmore	4,000	2,900	2,890
Yale Oil Corp., Yale	2,000	700	700
York Refining Co., Oklahoma City	3,000	600	386
Total	389,786	151,050	155,670

*Shut down.

REFINERY OPERATIONS IN NORTH CENTRAL TEXAS

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Allstate Refining Co., Thrall	3,000	500	500
American Refining Properties, Wichita Falls	5,000	(*)	(*)
Archer Refining Co., Megargel	1,500	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	2,500	2,500
Dale Oil & Refining Co., Electra	4,000	(*)	(*)
Bobrose Oil & Refineries, Brownwood	2,000	(*)	(*)
Dixon Creek Oil & Refining Co., Kings Mill	3,500	1,000	900
Empire Oil & Refining Co., Gainesville	5,000	3,000	3,000
Falls Refining Co., Wichita Falls	2,000	500	1,000
Gratex Refining Co., Graham	500	150	150
Gulf Refining Co., Fort Worth	10,000	6,000	6,005
Humble Oil & Refining Co., Breckenridge	2,000	(*)	(*)
Humble Oil & Refining Co., Chilton	4,000	(*)	500
Humble Oil & Refining Co., Neches	5,000	1,700	1,625
Iowa Park Producing & Refining Co., Iowa Park	2,500	(*)	(*)
Kent Refining Co., Minerva	2,000	275	300
Kent Refining Co., Angus	4,000	(*)	200
LaSalle Petroleum Co., Burkburnett	3,500	230	200
Macmillan Petroleum Co., Isom	5,000	(*)	(*)
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	4,000	1,200
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	2,500	5,000
Magnolia Petroleum Co., Corsicana	5,000	4,000	4,500
Marathon Oil Co., Fort Worth	5,000	3,800	3,800
Moon Refining Co., Graham	300	100	(*)
Muenster Refining Co., Muenster	300	(*)	(*)
Olney Oil & Refining Co., Olney	2,500	1,750	1,600
Oriental Oil Co., Dallas	5,000	1,500	1,500
Panhandle Refining Co., Wichita Falls	5,000	2,300	2,700
Petroleum Refractionating Co., Pampa	6,500	5,000	5,000
Phillips Petroleum Co., Isom	18,000	17,500	19,000
Phoenix Refining Co., Inc., Dallas	3,000	600	600
Pilot Point Refining Co., Pilot Point	500	380	(*)
Primrose Refining Co., Wichita Falls	2,500	(*)	(*)
Shamrock Oil Co., Sunray	4,000	(*)	(*)
Sinclair Refining Co., Fort Worth	5,000	2,500	2,500
Simms Oil Co., West Dallas	4,500	3,000	3,000
Southland Refining Co., Olney	1,000	150	200
Star Refining & Producing Co., Fort Worth	1,500	700	700
Taylor Refining Co., Taylor	6,000	1,500	1,500
Taxman Refining Co., Wichita Falls	3,000	3,000	3,000
The Texas Company, Dallas	16,000	14,000	14,000
The Texas Company, Amarillo	4,000	2,000	2,000
Texas Pacific Coal & Oil Co., Fort Worth	3,000	2,300	2,500
Texas Pacific Coal & Oil Co., Caddo	1,000	550	500
Waggoner Refining Co., Electra	3,400	2,500	2,500
Wilcox Oil & Gas Co. (Pampa Refining Co.), Pampa	4,000	(*)	(*)
Young Refining Co., Archer City	250	(*)	(*)
Total	204,800	92,735	93,875

*Shut down.

NORTH LOUISIANA

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Bayou State Refining Co., Houston	750	350	350
Cedar Grove Refining Co., Shreveport	750	350	(*)
Louisiana Oil Refining Co., Shreveport, Bossier	19,000	18,700	18,700
Spartan Refining Co., Shreveport	10,000	6,000	6,000
Stanolind Oil & Gas Co., Superior	3,500	3,500	2,000
The Texas Company, Shreveport	7,000	(*)	(*)
Total	41,000	27,300	27,050

*Shut down.

REFINERY OPERATIONS IN WEST TEXAS

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Bulebonnett Oil Refining Co., Wickett	5,000	(*)	(*)
Bobrose Oil & Refineries, Luling	2,500	1,500	2,000
Burford Oil Co., Pecos City	5,000	1,500	1,500
Coltex Refining Co., Colorado	10,000	5,000	3,500
Cosden Oil Co., Big Spring	15,000	4,000	5,200
Grayburg Oil Co., San Antonio	6,000	650	1,000
Great West Refining Co., Big Spring	8,568	(*)	(*)
Gulf Refining Co., Sweetwater	5,000	4,000	4,000
Howard County Refining Co.	2,500	(*)	(*)
Humble Oil & Refining Co., San Antonio	5,000	1,600	1,610
Humble Oil & Refining Co., McCamey	15,000	(*)	(*)
Magnolia Petroleum Co., Luling	5,000	3,500	2,000
Marathon Oil Co., Del Rio	5,000	1,600	1,500
Misko Refineries, Inc., Laredo	1,500	350	350
Octane Refining Co., Beard	2,000	1,100	1,500
Paramount Refining Co., San Angelo	1,500	500	500
Pasotex Petroleum Co., El Paso	14,000	4,000	3,500
Phoenix Refining Co., Pettus	300	600	600
Pioneer Oil & Refining Co., Somerset	1,500	800	1,000
Richardson Refining Co., Big Spring	6,000	(*)	(*)
Rio Grande Oil Co., El Paso	6,000	1,000	1,000
Signal Gasoline Co., Texon	500	(*)	(*)
The Texas Company, San Antonio	3,000	2,500	2,500
The Texas Company, El Paso	2,000	700	500
Tonkawa Petroleum Co., Pyote	5,000	(*)	(*)
Texas Mexican Oil & Refining Co., Laredo	600	400	400
Texas Petroleum Products Co., Somerset	1,500	600	600
Wickett Refining Co., Wickett	2,500	700	500
Total	139,400	37,100	35,760

*Shut down.

REFINERY OPERATIONS IN KANSAS

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Aug. 1	Runs July 1
Altitude Petroleum Corp., Chanute	5,000	(†)	100
Barnsdall Refineries, Inc., Wichita	4,000	2,250	2,250
Derby Oil Co., Wichita	7,500	4,000	4,000
Eldorado Refining Co., Eldorado	4,500	3,000	3,200
Golden Rule Refining Co., Wichita	1,500	900	900
Kanotex Refining Co., Arkansas City	12,000	6,500	6,000
National Refining Co., Coffeyville	6,500	5,000	5,000
Phillips Petroleum Co., Kansas City	7,500	6,500	6,500
Shell Petroleum Corp., Arkansas City	22,000	10,000	10,000
Sinclair Refining Co., Coffeyville	12,000	11,000	11,000
Sinclair Refining Co., Argentine	9,500	(*)	(*)
Skelly Oil Co., Eldorado	23,000	11,000	12,200
Standard Oil Co. of Kansas, Neodesha	20,000	6,000	6,000
Vickers Petroleum Co., Potwin	2,500	2,500	2,500
White Eagle Oil Corp., Augusta	15,000	12,000	12,000
Total	153,500	80,150	81,600

*Shut down. †Operating cracking stills.

Revenue Department Clarifies Tax Ruling

(Continued from Page 21)

on the effective date of the act are not taxable.

"Section 617 (c) (1) of the revenue act of 1932 provides that the term producer includes a refiner, compounder or blender, and a dealer selling gasoline exclusively to producers of gasoline, as well as a producer.

"It is held that all sales of gasoline by a person qualifying as a producer are taxable regardless of when or how the gasoline was produced or acquired."

Question 4—Relating to Regulations 46, Section 603:

"Reference is made to your letter of June 23, 1932, in which you request information as to the taxability of petroleum jellies under Section 603 of the revenue act of 1932. You are advised that pure petroleum jellies, as well as petroleum jellies used strictly for medicinal purposes, are not taxable under Section 603, revenue act of 1932.

"The tax attaches to the sale by the manufacturer of all preparations which are used or applied, or intended to be used or applied for toilet purposes. The fact that any particular product, preparation, or substance coming within the scope of the act may have, or be held out to have, a medicinal, stimulating remedial, or curative value does not exempt it from the tax if it is commonly used as an adjunct to the toilet or for toilet purposes.

"If, however, the article is advertised and held out as being suitable for toilet purposes, the tax will attach. Petroleum jelly used as a hair dressing (such as 'Pomade') is held taxable under Section 603. The rate of tax is 10 per cent of the manufacturer's sale price."

Question 5—Relating to Regulations 44, Article 11, Section 601 (c) (1):

"Reference is made to your letter of June 20, 1932, in which you request a ruling on the taxability of 'paraffin oil' used by you in the manufacture of floor sweeping compound.

"Under Treasury Decision 4,339, approved July 16, 1932, amending Article 11 of Regulations 44, no tax will be imposed under Section 601 (c) (1) of the revenue act of 1932 upon oils sold (otherwise than as lubricating oil) for use by the vendee in the manufacture of floor sweeping compounds, provided the vendee furnishes to the vendor a certificate to the effect that it will be so used by him."

Cracking Units Yield High Octane Gasoline

(Continued from Page 9)

mately 150 bbls. of 27 vapor pressure gasoline daily.

Debutanizer

The debutanizer has been designed to handle the output from the cracking and reforming units and reduced the vapor pressure on the distillate to 4 pounds. As a result there is practically no loss in rerunning the distillate in the rerun unit. The vapor recovery plant, stabilizer and debutanizer were designed and built by the Jackson Engineering Co., now a part of the Alco Products Corp.

SPECIAL SERVICE TO FARMERS

CHATHAM, Ontario, Aug. 4.—An interesting phase of the activities of Imperial Oil, Ltd., in connection with agriculture in Canada is its series of farm books. The first of these, "Field and Farmyard," was issued in 1929. "Weed Control" was issued in 1930 together with a simplified book, "Thieves in the Fields," designed to educate farm children to the weed menace. The 1931 volume was "Farm Management" and the 1932 book is "Feeding Farm Animals." The volumes are compiled by Hon. Duncan Marshall, former minister of agriculture for Alberta, and the aim is to furnish authoritative textbooks in regard to agriculture. Upwards of 300,000 copies of the various volumes have been distributed.

America Sold $14,000,000 of Oil Equipment to Russia

Russia purchased approximately $14,000,000 worth of oil well and refinery machinery from the United States during the four-year period of 1928-31, followed by Venezuela, with about $11,000,000, and Netherlands East Indies, with about $7,000,000, according to J. E. Wash, of the U. S. Commerce Department's Industrial Machinery Division.

This classification of machinery has been held an important place in United States exports of industrial machinery, it was stated. Total buisness done with the world during the four years under review reached about $76,000,000, mounting from $15,000,000 in 1926 to $25,000,000 in the peak year of 1929.

Exports for 1931, however, totaled $10,650,000, compared with $23,800,000 for 1930. The 1931 figure was the lowest on record since 1925.

Bright spots noted in the survey resulted from the renewed upward trend of Colombian purchases, the continued gradual increase in trade with Japan, and a substantial improvement in the German demand for both well drilling and refinery equipment.

Lower prices for petroleum products was, of course, the outstanding factor in reducing the purchasing power of oil producing and refining interests throughout the world, and consequently limited the demand for new equipment.

The United States remained the world's principal source of oil well and refinery machinery, followed by Germany and Great Britain.

Refinery Output in Rumania for 1931 Shows Large Gains

NEW YORK, Aug. 6.—Production of refined products by refineries in Rumania during 1931 showed an increase of more than 16 per cent over the previous year, according to government statistics on the year's operations, just received here.

Crude throughput of refineries in Rumania during the year amounted to 6,576,882 tons, which yielded 90.9 per cent of refined products, or 5,981,002 tons. Of the remainder, 392,968 tons were used as fuel oil at refineries, and 202,912 tons, or 3.1 per cent of the total, represents loss. Production, by products, for the year, with comparison for the previous year, follows:

	Tons 1931	Tons 1930
Motor spirit	1,478,382	1,259,233
White spirit	81,510	77,374
Kerosene	1,164,906	1,066,762
Gas oil	847,365	655,129
Lub oil	88,529	105,971
Fuel oil	2,658,709	2,300,288
Miscellaneous	54,469	56,763

Throughput of principal Rumanian refining companies during the year with comparisons for 1930, follow:

	Tons 1931	Tons 1930
Steaua Romana	1,392,105	924,684
Astra Romana	1,327,868	952,184
Phoenix (Unirea)	776,140	634,000
Romano-Americana	703,358	584,598
Concordia	586,711	626,865

A number of Rumanian plants last year installed cracking units, which is largely responsible for the substantial increase in gasoline production during the year.

Substantial Gain Is Shown in July Well Completions

A 25 per cent increase in the number of wells completed in fields east of California was recorded during July as compared to June while the initial oil production of these completions was 74,873 bbls. greater than the first day's output of the wells completed in June. However, new work during July showed a falling off from June, there being 201 less operations at the end of July than at the beginning of that month.

Almost every section of the country east of California helped raise the total of wells completed during July over the number finished in June. Of the increase of 334 completions, the Eastern and Central West fields accounted for 92. East and East Central Texas had 106 more wells completed in July than in June. The decline in new operations also was not confined to any particular area, slight decreases being shown in a majority of the fields.

SUMMARY OF ALL FIELDS
WELLS COMPLETED

	Comp.	Prod.	Dry	Gas
Eastern	165	737	8	15
Central Ohio	40	234	10	10
Lima	10	66	3	3
Indiana	18	121	9	3
Michigan	15	3,400	4	1
Kentucky	59	4,042	18	4
Illinois	7	10	4	1
Kansas	72	48,993	19	2
Oklahoma	123	53,985	35	11
North Central Texas	125	2,581	71	7
E. Central and E. Tex.	744	44,052	15	2
West Texas	31	6,042	6	0
Texas Panhandle	17	3,500	5	1
Gulf Coast	81	30,998	40	1
Southwest Texas	113	10,636	65	7
North Louisiana	27	1,540	17	1
Arkansas	1	0	1	0
Mississippi	2	0	1	1
Alabama	1	0	1	0
East Texas Border	4	10	2	0
Montana	5	273	1	0
Utah	0	0	0	0
Wyoming	11	290	6	1
Colorado	1	0	1	0
New Mexico	5	6,348	0	1
Total July	1,677	217,864	343	72
Total June	1,343	142,991	301	66
Difference	334	74,873	42	6

RIGS AND WELLS DRILLING

	Rigs	Dlg.	Ttl.
Eastern	58	156	214
Central Ohio	23	73	96
Lima	3	19	22
Indiana	3	68	71
Michigan	42	67	109
Kentucky	12	65	77
Illinois	1	17	18
Kansas	55	90	145
Oklahoma	142	305	447
North Central Texas	45	152	197
E. Central and E. Tex.	275	315	590
West Texas	14	86	100
Texas Panhandle	13	36	49
Gulf Coast	7	103	110
Southwest Texas	23	128	151
North Louisiana	66	93	159
Arkansas	11	26	37
Mississippi	2	14	16
Alabama	1	3	4
East Texas Border	3	22	25
Montana	14	55	69
Utah	0	17	17
Wyoming	14	76	90
Colorado	9	68	77
New Mexico	7	53	60
Total July	843	2,107	2,950
Total June	910	2,241	3,151
Difference	67	134	201

Argentina Largest Buyer of U. S. Oil Equipment

WASHINGTON, D. C., Aug. 8.—Argentina was far ahead of all other countries in the importation of petroleum and gas well drilling apparatus of American manufacture during the month of May, the value of such imports being $125,487. Other petroleum well and refining machinery imported from this country in May was valued at $29,125.

Other leading importers of American oil machinery in May were as follows:

"Petroleum and gas well drilling apparatus": Rumania, $14,463; Spain, $1,418; United Kingdom, $3,291; Canada, $154; Mexico, $11,971; Trinidad and Tobago, $6,750; Colombia, $560; Ecuador, $428; Peru, $504; Venezuela, $18,618; British India, $27,313; British Malaya, $3,848; Netherland East Indies, $955; Japan, $228; Persia, $758; Philippine Islands, $323; Egypt, $961.

Other American exports of "Other petroleum well and refinery machinery" were: France, $30,183; Italy, $28,789; Poland and Danzig, $5,490; Rumania, $13,395; Soviet Russia in Europe, $620; Canada, $5,329; Mexico, $5,965; Trinidad and Tobago, $44,126; Cuba, $334; Netherland West Indies, $630; Colombia, $3,835; Peru, $1,619; Venezuela, $25,574; British India, $695; Netherland East Indies, $770; Japan, $7,640; Turkey, $2,355.

Henry Ford Anticipates Increase in Motor Sales

DETROIT, Mich., Aug. 8.—The motor industry need not depend entirely upon replacements for its future business, says Henry Ford, who anticipates eventual further increase in the number of automobiles registered in this country.

"If one understands the American people," he says, "he will realize that they want and will have even more and better transportation facilities than at present. The automobile business will increase as soon as general conditions begin to improve. We do not need foreign markets to have a good automobile trade."

RUSSIAN EXPORTS GAIN

WASHINGTON, D. C., Aug. 8.—Exports of petroleum products showed the only increase of export trade in Soviet Russia during June compared with the same month last year. Exports of petroleum products in June amounted to 426,328 tons compared with 352,646 tons in June, 1931. Italy, Germany, France and Spain were the largest takers, cargoes consigned to these countries representing about 65 per cent of the total exports.—C. E. K.

Investigation of Rumored Oil Thefts in Oklahoma City Field Recommended

The truth or falsity of rumors to the effect that proration regulations in the Oklahoma City Pool have been violated through various secret, underhanded methods is to be established if the recommendations of a resolution formulated and approved by a majority of the Legal Advisory Committee are adopted by the Oklahoma Statewide Proration Committee. The resolution cites that these rumors "go to the length of asserting that some of the major purchasers in the field, secretly and by indirect methods, are conniving in these violations and possibly through indirect means participating therein." The rumors are referred to as "insidious and difficult to meet," "destructive and dangerous."

The recommendations of the Legal Advisory Committee look to the employment of special legal counsel to investigate these rumors. Upon obtaining evidence that there have been such violations of the proration orders as have been rumored, this legal counsel is to file a petition before the Oklahoma Corporation Commission to the end that the commission "shall have before it a proceeding that will vest it with full jurisdiction to investigate and determine the truth or falsity of each and all said rumors, charges and counter charges of violations." "An exhaustive investigation alone will suffice," the resolution declares.

The resolution, approved by a majority of the 13 members of the Legal Advisory Committee, follows:

"Whereas, the value and effectiveness of the proration orders made by the Oklahoma Corporation Commission to prevent the waste of oil and gas entirely depend, not only upon the strict, unvarying and wholly impartial enforcement of all such orders against all producers subject thereto, whether large or small, but also upon the comparatively universal recognition by all classes of producers that absolute equality of treatment is being accorded each producer in the enforcement of orders of this kind, and

Other Operators Injured

"Whereas, when several oil producers in an oil pool subject to proration, secretly and covertly, produce more than their allowable, then to the extent of the excess, they take oil, gas and gas energy not belonging to them to the great and irreparable loss of the vast majority of operators in the pool whose respect for law and concern for the common welfare of the industry cause them, as a matter of common honesty, fair dealing and industrial vision, implicity and strictly to obey all the proration orders of the Corporation Commission until set aside upon appeal or other legal process, and

"Whereas, in the Oklahoma City Pool in the case of some operators, the wholly indefensible, dishonest and shortsighted practices above condemned have been carried on for months, not openly in a way that would possess the virtue of courage, at least, but at times with secret outlets

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Signal Hill (Long Beach)	Seal Beach, Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Dominguez	Montebello	Wheeler Ridge	Coalinga	Whittier-LaHabra
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$ 65	....	$.55	$.55	....	$.65	$.55	$.55	$.65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.58	.55	....	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	.65	....	.59	.59	....	.65	.57	.59	.69
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.73
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.63	.65	.77
23-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.83
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	.73	.81	.81	.89	.76	.69	.72	.89
25-25.9	.93	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	.97	....	.96	.97	....	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	98	.94	1.02	.99	1.03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1 02	.98	1.07	1 02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1 05	1.02	1.12	1.05	1 09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1.10	....	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1 22	....	....	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

The Texas Company, effective June 26, posted same prices as the Standard Oil Co. in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello, North Whittier and Santa Fe Springs.

The Union Oil Co., effective June 26, posted the same prices as the Standard Oil Co. in the Signal Hill, Alamitos Heights, Seal Beach, Huntington Beach, Athens, Rosecrans, Dominguez, Torrance, Santa Fe Springs, Playa Del Rey, Coyote, Olinda, Brea Canyon, Richfield and Montebello. In Coalinga, Lost Hills, Kern River, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills the Union Oil Co. met the Standard Oil Co.'s prices from 14 gravity upward, but posted a price of 50 cents for oil 11 to 13.9 degrees in gravity.

General Petroleum Co. adopted Standard Oil Co.'s prices, effective June 26, in Rosecrans, Signal Hill, Alamitos Heights, Santa Fe Springs, Inglewood, Torrance, Brea Canyon, and Olinda, up to 35.9 degrees; Richfield, Ventura Avenue, Midway-Sunset, Fruitvale, Kern River, Poso, Round Mountain, and Coalinga and posted in Rincon as follows: 22-22.9 degrees, 68 cents; 23-23.9 degrees, 73 cents; 24-24.9 degrees, 78 cents; 25-25.9 degrees, 82 cents; 26-26.9 degrees, 86 cents; 27-27.9 degrees, 89 cents; 28-28.9 degrees, 92 cents; 29-29.9 degrees, 95 cents; 30 degrees and over, 98 cents. In Rosecrans General Petroleum Co. pays 65 cents for 14 to 19.9 gravity oil; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 74 cents; 22-22.9 degrees, 79 cents; 23-23.9 degrees, 84 cents and Standard's prices for oil of higher gravity.

Associated Oil Co., effective June 26, met Standard Oil Co.'s prices in Signal Hill, Huntington Beach, Seal Beach, Alamitos Heights, Richfield, Torrance, Inglewood, Athens, Rosecrans, Dominguez, Santa Fe Springs, McKittrick, Kern River, Midway Sunset, Elk Hills, Buena Vista Hills, Lost Hills, Belridge and Coalinga.

Kettleman Hills—The Union Oil Co., effective June 26, posted 33-33.9 gravity oil at 91 cents; 34-34.9 degrees, 93 cents; 35-35.9 degrees, 95 cents; 36-36.9 degrees, 97 cents; 37-37.9 degrees, 99 cents; 38-38.9 degrees, $1.01; 39 degrees and over, $1.03, Standard Oil Co. Associated Oil Co. and General Petroleum Co. adopted same price schedule on same day.

Santa Paula—The Union Oil Co. and The Texas Company, effective June 26, posted as follows: 14 degrees to 19.19.9 degrees, 65 cents; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 72 cents; 22-22.9 degrees, 75 cents; 23-23.9 degrees, 78 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 84 cents; 26-26.9 degrees, 87 cents; 27-27.9 degrees, 90 cents; 28-28.9 degrees, 93 cents; 29 degrees and above, 99 cents.

Shiells Canyon and South Mountain—The Texas Company, effective June 26, posted same prices as in Santa Paula.

Orcutt—The Union Oil Co., effective June 26, posted prices as follows: 14 degrees to 19.9 degrees, 55 cents; 20-20.9 degrees, 59 cents; 21-21.9 degrees, 63 cents; 22.22.9 degrees, 69 cents; 23-23.9 degrees, 75 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 87 cents; 26 degrees and above, 92 cents.

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Ventura Avenue—General Petroleum Co. and Associated Oil Co. effective June 26 posted as follows: 22-22.9 degrees, 72 cents; 23-23.9 degrees, 77 cents; 24-24.9 degrees, 82 cents; 25-25.9 degrees, 86 cents; 26-26.9 degrees, 90 cents; 27-27.9 degrees, 93 cents; 28-28.9 degrees, 96 cents; 29-29.9 degrees, 99 cents; 30 degrees and over, $1.02.

Potrero—Associated Oil Co., effective June 26, posted same prices as are paid by all companies in Athens, Rosecrans and Dominguez.

and other concealed devices, and all the while with a furtiveness, cunning and devious scheming that should be an ever present solace to the conscience of the men who, for immediate greed and gain, would so offend the law and their neighboring operators in the pool, and

"Whereas, far more insidious and difficult to meet, and certainly as destructive and dangerous to the fundamentals of proration are the rumors, insinuations, charges and counter charges of secret violations of the proration orders in this field. Never yet have these rumors and insinuations completely been sifted, nor have the charges and counter charges been established by actual and convincing proof one way or the other, and

Major Purchasers Accused

"Whereas, these rumors go to the length of asserting that some of the major purchasers in the field, secretly and by indirect methods, are conniving in these violations and possibly through indirect means participating therein, and

"Whereas, all of the above things strongly have been impressed upon this committee by a representative group of the larger oil operators in the Oklahoma City Field, and

"Whereas, this committee, as the legal advisor of the Oklahoma statewide proration committee, in consideration of the premises, feels that it has a clear duty to perform.

"Now, therefore, this committee reports to the statewide proration committee, and to those operators in the Oklahoma City Field who consistently are obeying the proration orders of the Corporation Commission applicable thereto, as follows:

"1. That the statewide proration committee jointly with the Oklahoma City operators who are bearing the expense of proration in that field, forthwith shall employ a firm of lawyers, preferably located at Oklahoma City, entirely familiar with proration questions and of such undoubted probity, ability, aggressiveness and courage, that any investigation conducted by them under our succeeding recommendations shall be so thorough, exhaustive and impartial that in the end all actual violations of proration orders in that field shall be uncovered, the guilty punished and brought to obey such orders, and of equal importance, that the rumors, insinuations, charges and counter charges of violations definitely shall be established as true or false so that upon the findings of the Corporation Commission as to such truth or falsity, the industy in this State shall accept such findings as conclusive.

"2. That the statewide proration committee and the Oklahoma City operators jointly shall arrange the term and compensation of such employment of counsel, the compensation to be borne by the operators subject to proration outside of the Oklahoma City Field, and the Oklahoma City operators in such proportion as they may agree upon.

Commission Has Wide Powers

"3. The Corporation Commission having made specific proration orders for the Oklahoma City Field has the power of making orders ancillary thereto. It has the further sweeping power to make any and all regulations necessary to enforce any propration order made by it. It has the power to subpoena witnesses, to determine what character of order for enforcement should be made. The legal path to the accomplishment of the purposes of this resolution is clear.

"4. This committee recommends, immediately following the employment of counsel hereinbefore suggested, that such counsel forthwith, after obtaining such facts of actual violations as can be secured, omitting violations already before the commission or the courts, shall prepare and file with the Oklahoma Corporation Commission, a proper and comprehensive petition alleging such violation of the proration orders of the commission applicable to the Oklahoma City Field that may have occurred since November, 1931; such petition, upon information and belief, and for the above period to allege the actual state of affairs in the Oklahoma City Pool in so far as there have been rumors, charges and counter charges of violations to the end that said commission shall have before it a proceeding that will vest it with full jurisdiction to investigate and determine the truth or falsity of each and all said rumors, charges and counter charges of violation.

Proceeding Should Be Broad

"5. The above proceeding in the minds of this committee should be one so broad and effective in its scope that after the findings of the commission, based upon all the evidence produced at the hearing or hearings, these things shall be brought about: (1) Whenever there shall be satisfactory proof of actual violations the guilty shall be punished as provided by the Oklahoma Conservation Act and orders made requiring all the wells of each violator to be shut in until the overproduction of such violator shall have been made up. (2) That whenever the evidence produced in respect of rumors, charges and countercharges of overproduction shall fail to sustain the same, the commission, by specific finding, shall so decide and by its order or orders, promulgate the fact or facts to the industry of the State.

"6. It is the sense of this committee that in a prorated pool oil cannot be produced illegally unless there is an illegal outlet. The latter inevitably controls the former. Therefore, under the proceeding here suggested, it should be the chief duty of the commission to ascertain every conceivable outlet from the Oklahoma City Pool for the period to be covered by the investigation. Secret outlets, unlawful trucking from the field, tank car movements and other hidden devices of outlet must be uncovered. But above these considerations is the attitude and record of the major purchasers and pipe line companies that serve the field an attitude and record that not one of them should show the slightest hesitancy to disclose. The supreme responsibility of these major purchasers and pipe line companies is to observe the law and uphold all valid proration orders. Subterfuges, evasions, failure to make accurate and complete reports of runs, alleged contractural relationships and indirection simply cannot be countenanced or condoned if the principle of effective proration is to survive.

Committee Is Unconvinced

"7. This committee cannot bring itself to the belief that any major purchaser or pipe line company taking from the Oklahoma City Pool has lent itself either directly or indirectly to conduct that threatens equal and effective operation of the proration orders of the commission applicable to the Oklahoma City Pool. But neither this commission nor the Corporation Commission is in positive possession of the facts one way or the other, and such is the predicament of the whole industry of the State. Let the facts be revealed; let responsibility fall where it should: If blame is to be attached to any one or more of the major purchasers and pipe line companies serving the Oklahoma City Field, not merely obvious and direct blame, but the surreptitious and unpardonable sort, let that too be placed so that all parties in interest shall be informed.

"8. The proceeding recommended by this committee presupposes the subpoenaing of every witness who can throw any light on these matters. An exhaustive investigation alone will suffice. The hearing before the Corporation Commission will be open. Every dissatisfied person will have an opportunity to be heard. Of necessity, both the investigation and the hearing will be protracted. But in the opinion of this committee the proration situation in Oklahoma has reached such a state that the exact truth concerning enforcement or nonenforcement of the proration orders applicable to the Oklahoma City Field must be settled by judicial inquiry and decision."

MAGNETIC STORM

The Tucson, Ariz., observatory of the U. S. Coast and Geodetic Survey reports a moderate magnetic storm starting July 2 at 7 a. m. (C.S.T.) and ending July 5 at 8 a. m. (C.S.T). The telegrams follow:

"Storm began second. Thirteen. Moderate."

"Storm ended fifth. Fourteen."

Two Million Barrel Limit Urged by President Beaty

NEW YORK, Aug. 9.—A further reduction in refinery runs of crude oil and larger drafts upon gasoline stocks is urged by Amos L. Beaty, president of the American Petroleum Institute, in a statement to the membership.

Reiterating his declaration made in June, Mr. Beaty said daily average domestic crude oil production of 2,000,000 bbls. should be the limit for the remainder of the year.

Late Fields

KANSAS

Swain and others' No. 1 Henthorn, C NW, Section 21-25-24w, Ford County wildcat, is bottomed at 5,205 feet, where a showing of oil was found; there is some water in the hole and no estimate of oil showing can be made. This wildcat is reported to have had considerable gas around 4,300 feet in sand.

Wolfe Creek Oil Co.'s No. 3 Krehbiel, NW cor., Section 25-19-2w, is a location in the Ritz-Canton Field in McPherson County.

United Petroleum Co. and others' No. 1 B. Smith, NW cor. NE NW, Section 29-19-1w, in the Ritz-Canton Pool, has landed a string of casing at 3,418 feet and has cemented it. The crew were rigging up standard tools and as soon as it is standardized it will be drilled into the Viola lime. The top of the Viola lime is expected around 3,425 feet.

Carter Oil Co.'s No. 1 Tinsley, NW cor. SE, Section 6-20-1w, in the Ritz-Canton Field, found the chat at 2,945-3,020 feet. A production test is expected to be made in a few days.

Skelly Oil Co.'s No. 1 well, in Section 6-17-9w, Ellsworth County, found the Siliceous lime at 3,295-98 feet, where water rose in the hole. It was plugged back to 3,294 feet and after a 10-quart shot it made 1 bbl. of oil and 1½ bbls. of water in six hours.

Slick, Pryor & Lockhart's No. 1 in C SW SW, Section 7-17-10w, Ellsworth County wildcat, was drilled deeper and found another pay at 3,205-13 feet where the well made 65 bbls. of oil in 10 hours.

OKLAHOMA

Phillips Petroleum Co. and others' No. 1 well, SW cor. SE, Section 25-10-11, Okfuskee County, made two flows estimated at 75 bbls. from the Wilcox sand at 3,911-72 feet. The well is the first in this district and it is believed to have opened a new Wilcox sand pool for this part of the county.

Indian Territory Illuminating Oil Co.'s No. 3 Little, in Section 27-11-3w, flowed 4,365 bbls. of oil in four hours from the Wilcox sand at 6,503-6,606 feet.

G. Pace's No. 1 C. Watkins, NE cor. SE SW, Section 22-2s-7w, in the East Comanche Field, Stephens County, was a failure at a total depth of 1,807 feet. It had sand at 1,776 feet. The same operator's No. 2 C. Watkins, SW cor. NW NE SW, Section 22-2s-7w, was abandoned at 2,000 feet. Both of these tests were three locations east of production in the field.

New locations announced in the Holdenville area of Hughes County, were, Manahan and others' No. 1, NE cor. SW SW, Section 10-7-8, and Burke Greis Oil Co.'s No. 1, SW cor. NW, Section 10-7-8.

Amerada Petroleum Corp. and others' No. 5 Chase, NE cor. SW, Section 29-9-6, in Seminole County, was drilled deeper to 4,107 feet where it swabbed 142 bbls. of oil in three hours.

Sunbeam Oil Co.'s No. 1 Campbell, NE cor. SW, Section 30-7-4, Pottawatomie County, an east extension well to the Sacred Heart area, was still fishing casing after shooting. It made 115 bbls. on the swab on last report.

J. W. Watson and E. C. Peet Are Promoted by Shell Corp.

The promotions of J. W. Watson to comptroller and E. C. Peet to assistant comptroller have been announced by the executive offices of Shell Petroleum Corp. of St. Louis.

Mr. Watson assumes his new position with a wealth of background in accounting and auditing experience. He is a certified public accountant in California and is an associate member of the American Institute of Accountants. In 1919 he joined Price, Waterhouse & Co. in the

J. W. WATSON

San Francisco office. He became associated with Shell Oil Co. in California on July 1, 1930, being transferred to Shell Petroleum Corp., home office, in St. Louis, a short time later as assistant comptroller. He served in that ca-

E. C. PEET

pacity until his appointment as comptroller.

Mr. Peet, a St. Louisan, has been in Shell service over 13 years. He joined the home office production accounting department of Shell Petroleum Corp. in July, 1919. At various times he has held the position of chief clerk in several accounting sections of the company. From June, 1930, he served as assistant to vice president until his appointment to assistant comptroller. He is a graduate of the St. Louis University School of Commerce and Finance.

SERVICE ON NEW FIELDS

Barton-Ellsworth Arch Field, Kansas

Compiled by The Oil and Gas Journal, August 8, 1932

LOCATION OF FIELD

Approved name.

The Barton-Ellsworth Arch Field is located in Barton, Ellsworth, Rice and Stafford Counties, Kansas, and consists of the following pools: Isern, in Barton County; Heiken, Stoltenberg, Stratman, and North Stratman, all in Ellsworth County; Beyer, Ploog, Sharpe and Schurr, in Rice County; and Richardson, in Stafford County.

Principal towns and cities.

Raymond is located about 1½ miles southeast of the discovery well in the Schurr area and the later development has spread to the north and south. Saint John, in Stafford County, is now the southern end of the field. Great Bend, in Barton County, is on the western edge of the area. Lyons and Chase in Rice County, are near the development. Holyrood, in Ellsworth County, is near the development in that county. Wichita, in Sedgwick County, is located about 65 miles southeast of the discovery well in the Schurr area.

Cities and towns where supply houses have branches.

The main supply houses are located in Wichita, McPherson and Holyrood. The field is generally served from these points. Several branches are now located in the townsite of McPherson, which is located about 45 miles east of the present development in the area. Raymond has a supply house and it is expected several others will be installed in nearby towns.

Railroads serving the area.

The Missouri Pacific runs through Stafford and Barton Counties. The Santa Fe runs through Rice and Barton Counties, and southern Ellsworth County. Union Pacific has a line through the central part of Ellsworth County. St. Louis and San Francisco Railroad has a branch that runs into Rice County.

Character of the roads.

State highway No. 14, which is paved, runs north and south through Rice and Ellsworth Counties. State highways Nos. 40 and 50 extend east and west through the field. The crossroads are considered excellent. They are sandy roads and are also all weather roads. State roads Nos. 14 and 50 are paved through this area the entire distance.

Type of country.

The country is rolling prairie land with very little timber and all leases and locations are easily available for immediate development. The only timber is near the creeks and rivers.

Trucking and hauling facilities available.

Several companies that are doing this kind of work operate out of Wichita and McPherson and smaller ones are to be found in Raymond and Holyrood. Trucking contractors and oil field teaming contractors are available at most of the towns and cities in the field.

Hotel and other accommodations.

Hotel facilities are modern and are plentiful in all the large and smaller towns in the area. The larger and more modern hotels are available in Wichita which is approximately a two-hour drive from the southern part of the field.

Domestic water supply.

The majority of the towns in the area have an abundance of pure water supplied by the Smoky Hill River and its tributaries. Some localities are supplied from wells.

Schools and churches.

All of the towns and cities have a good complete school system, and several colleges are located in this area. Churches of leading denominations are also located in the nearby towns and cities.

General remarks.

This part of the state has long been considered a prospective oil territory and as far back as 10 years ago several dry holes were drilled. Parts of this large territory which extends about 150 miles north and south and 65 miles east and west, were settled by Mennonites.

PIPE LINES

The only major pipe line into the area is that of the Sinclair Prairie Pipe Line Co., which runs from El Dorado to the Schurr Pool, in Rice County. This is an 8-inch pipe line which is used under a joint tariff by the Stanolind Crude Oil Purchasing Co. There are several loading racks in the area owned and operated by several different companies. The Shell Petroleum Corp. and Carter Oil Co. and others have a pipe line from their well in Section 33-18-9w, Rice County, to the town of Pollard, where tank cars are loaded out on the Frisco. The Derby Oil Co. has a pipe line from the Stratman area to Lorraine, in Ellsworth County, where the oil is loaded out in tank cars on the Frisco. The Eldorado Refining Co. has a pipe line from the Stratman area to Holyrood, where the tanks are loaded out on the Santa Fe. Allison and Fitzwilliam are using the Stanolind Crude Oil Purchasing Co.'s pipe line and loading rack from its well in the North Stratman area to Holyrood. The Empire Oil & Refining Co. and others have a pipe line from their property in Section 13-20-10w, Rice County, to the townsite of Chase, whence the tank cars are shipped out over the Rock Island. The Stanolind Crude Oil Purchasing Co. has a loading rack at Hudson, in Stafford County, which is shut down. Its pipe line connects with the Midwest Refining Co.'s well in the Richardson area in the same county.

GEOLOGICAL DATA

The surface formations consist of rocks of the Cretaceous and Permian ages, the former being exposed in the western part of the area, while the later outcrop over the eastern portion. The Cretaceous formations have low regional dip to the northeast, the Permian strata dip at a relatively low angle to the northwest. The structures, in general, are not exceptionally well defined on surface but increase in intensity with depth.

The geological data from the Fairport structure in western Russell County indicate that the dips are approximately four times as steep at a depth of 3,000 feet as they are at the surface.

The subsurface data reveal the existence of a major fold trending in a northwest-southeast general direction with at least two major cross folds trending in a north-south or northeast-southwest direction. Data also reveal that the Pennsylvanian formations underlying the Permian rest unconformably upon rocks of Mississippian or Ordovician age, which in turn lie over buried ridges or crystalline rocks.

Further information shows that over a considerable portion, at least of the major folds, the Pennsylvanian formations rest directly upon rocks of Ordovician age.

The area is believed to be a part of the highly folded system of buried ridges of the Central Kansas uplift and is comparable in many respects to the highly productive Augusta-El Dorado area. Data as to the estimated per-acre recovery from the Ordovician horizon are not conclusive at this time, but it appears from the information available that approximately 8,000 bbls. recovery per acre may be safely anticipated from such horizon.

The development to date has demonstrated the existence of several pools of considerable importance wherein production may be secured from one or more horizons.

The size of the field, the relatively shallow depth of the producing strata and the parallelism to the highly productive Eldorado-Augusta Field will cause companies and operators to focus attention upon this region and gradually accelerate major development.

DEVELOPMENT

Discovery of the field.

The discovery well of the field was completed in October, 1929. It was the Steinbuckle and others' No. 1 Schurr, NE cor. SW Sec. 21-20-10w, Rice County, making 202 bbls. a day from a stray sand at 3,275-84 feet. This well and acreage was later sold to Slick, Pryor and Lockhart and was drilled deeper to the Siliceous lime at 3,304-08 feet, where it made 860 bbls. of oil a day, in February, 1930. This well led to others being drilled in the same vicinity, but the west offset missed the stray sand.

Subsequent development.

Since the discovery well was drilled in 1929, there have been 40 wells completed and 12 pools opened, some of which are only one-well pools. The wells range in size from 50 bbls. to 3,000 bbls. a day, all producing from the Silicious lime, with

EPORT BULLETIN EXTRA

RENTAL POLICY CHANGED

Bridgeport Adopts 6-Day Rental Minimum

NO LET DOWN IN SERVICE

Full Stocks at Strategic Points

Bridgeport Rental Prices are backed up by complete stocks of rental tools in every Bridgeport Branch. A quotation from Bridgeport means that the Company has the tool on hand, in first class condition for the service demanded of it, and ready to be shipped or delivered to your truck on an instant's notice. Backed by Bridgeport's well known 24-hour service policy—accepting collect calls from any point in the country, night or day, Bridgeport offers faster service, a high standard of quality, and the most favorable prices and terms to be found anywhere.

Twenty-five years ago, when oil was first discovered in southern Illinois, two men started a small machine shop in Bridgeport, Ill. By close attention to business, and sparing no effort to give the right kind of service, two men, J. A. (Jim) Hall and Ed. Boyd, soon succeeded in establishing an enviable reputation for their little shop. Their product, found their way by leaps and bounds to the home offices of the Company are still located

Even during the past two unsettled years the Company has made remarkable strides, both in the further development of its service, and in its rapidly expanding list of satisfied customers,

and this year, during which it celebrates its 25th anniversary, finds the Bridgeport Machine Company in an exceptionally strong financial position. In fact, Bridgeport, through its far-sighted policy, has undoubtedly greatly strengthened its place in the industry in the past two years.

Both the Company's willingness, as well as its financial ability to adapt itself to ever-changing conditions in the industry, to anticipate every new demand and fill it, to leave nothing undone to save every possible dollar for the hard-pressed producer, have gained it scores of new friends who are certain to give the Company a constantly increasing volume of business, as conditions gradually return to normal

BRIDGEPORT POINTS THE WAY

In Tune With the Times

Among many other things in which Bridgeport has led, is its policy of making it possible for the wild-catter, far removed from any established field, to get the full benefit of Bridgeport service, on practically the same terms as operators in active fields. This is done by a special transportation allowance up to 10% of the rental charge where tools are shipped by public carrier, by making no rental charge for tools while in transit, no charge at all for tools if not used and returned within 10 days, and many other special allowances which make it distinctly to the advantage of the wild-catter to depend wherever possible on Bridgeport for his needs This is but another evidence of how Bridgeport has kept in tune with the times

25 YEARS SHOP WORK EXPERIENCE

Bridgeport's exceptional facilities for the very highest type of shop work are the result of the Company's 25 years of experience in this field—during which it has been possible to build up a trained staff second to none, coupled with the most complete, modern equipment to be found anywhere in the country. The utmost efficiency which is characteristic of all Bridgeport shop work, makes possible prices which are competitive, if not lower than the average.

RENTAL RATES REDUCED FROM 35% TO 50% ON MOST TOOLS

Means Tremendous Savings to Oil Operators

When the oil business was in its infancy a policy was adopted by rental tool companies of a 3-day minimum charge on all rental tools—with an additional charge of course for each day the tools were kept over this minimum. For decades this policy has been in effect.

The Bridgeport Machine Company has taken the lead in many new ideas during the past two years, to enable oil producers to cut their operating costs and make more money. Now this company, in a further effort to help the industry, is making the most startling announcement in the entire history of the oil industry "Taking the bull by the horns" figuratively speaking, this progressive supply company and world's largest rental tool house has again taken the lead, in wiping out an age-old precedent. Not only has Bridgeport abolished the old 3-day minimum on rental tools, but in addition to this their rental rates for the 6-day period on most tools have been reduced from 35% to 50% over the old 3-day minimum rates.

A few examples of the new rates on tools in common usage forcefully illustrate the tremendous savings which Bridgeport is now making possible for oil men every where A 6-⅝" Hychrome Combination Socket can nowbe rented for 6 days for only $9.25; a 6-⅝" Bridgeport one-piece Hollow Reamer can now be rented for the 6-day minimum at a total cost of only $9.00; the 6-day minimum rate on a 20" Drive Head is only $21 15; a 6-⅝" Elevator, with links, can be rented for the full 6 days for only $3.50

And so it goes all down the line—practically every tool in Bridgeport's rental tool departments, in every one of their many branches, is now available to oil men for 6 full days, at from 35% to 50% less than they formerly paid for only 3 days

The principal exceptions to this new 6-day rental minimum are on Swan Underreamers (both New Type and Regular) on which the minimum rental is 10 days, and complete strings of cleaning out tools, on which the minimum is set at 14 days However, Regular Swan Underreamer rentals have been cut a full 50%, as is announced elsewhere on this page, and in the case of cleaning out tools, a complete string of tools for a 5-⅞" hole can now be rented for only $100, or for a 6-⅝" hole for only $120 These prices do not include transportation, which the customer pays both ways. Boilers, engines, casing and pipe of course, are not included

Bridgeport guarantees that there will be no change in quality and service standards under these new low prices and increased rental minimum Every Bridgeport Branch will remain open 24 hours every day, including Sundays, and collect calls will be accepted from any point In fact, Bridgeport invites oil men everywhere to call their nearest Bridgeport Branch, collect, and get the complete story of this sensational new policy

All Bridgeport rental tools are regularly inspected to be sure they are in perfect condition for instant use—tools are kept in good buildings, under cranes, where they can easily be handled and put on the customer's trucks This is a big item for the customer, giving him a dependable, superior service at all times

UNDERREAMER RENTAL PRICE DOWN

In line with the reductions in rentals, Bridgeport has cut the rental rates on Regular Type Swan Underreamers a flat 50%, on the same 10-day minimum rental basis, with either plain or hard-face cutters. Rates for additional days have also been reduced 50% The regular charge is made, of course, for hard face cutters. A special discount of $25. is further allowed if the rental outfit is returned within 3 days, and only one set of cutters used. An extra discount of 25% is allowed on all used regular type Swan parts purchased in connection with rentals. Hard face cutters can also be rented for the New Type Swan, ready to run, without field dressing—subject to a nominal charge for re-hard-facing of cutters used.

SERVICE ON NEW FIELDS

Barton-Ellsworth Arch Field, Kansas

(Continued from Preceding Page)

the exception of one well in Ellsworth County which found production in the Kansas City lime.

Number of operations.

There was a total of 19 operations in the area on July 15, of which 9 were rigs, 6 drilling and 4 shut down.

Future activity in the area.

A large number of leases in this area are 10-year leases, and it will be some time before the companies or independent operators must drill to protect their interests. A large number of offsets would be necessary if the wells were opened and produced. This will depend upon the pipe line demand from the field. Much of the area is held in large blocks by major oil companies, but many of the operators hold checkerboard leases which are expected to be developed first.

DRILLING CONDITIONS

Drilling water.

The majority of the water used for drilling comes from nearby streams and shallow water wells, which are drilled at a low cost. This water is alkaline and it is necessary to treat it. Some water is available from streams in certain areas where the wells are drilled on nearby locations.

Boiler fuel.

The discovery well in the field used oil for fuel but since that time of the 40 wells that have been drilled in the area about 25 per cent have used electric power and the other 75 per cent oil. Some gas is now available in the majority of the sections as several large gas wells have since been completed. The average cost of the electric power is $50 a day and the cost of gas is around $35 to $40 per day.

How the wells are drilled.

The drilling of wells has been mostly by contract, as very few of the companies with production have tools of their own.

Cost of drilling.

The cost of wells producing from the Siliceous lime, which is found at approximately 3,300 to 3,400 feet, is from $25,000 to $30,000. About the only difficulty found in drilling is the quick sand which is near the top of the hole, salt found at 800 feet, and a cave at 1,900 feet. The balance of the digging is comparatively easy and enables the crews to make good time. Wells usually drill 100 to 200 feet into the Siliceous lime before finding the oil.

Drilling time to complete a well.

The average drilling time in this area is from 35 to 40 days at this time for cable tools. When the field was first discovered it required about 90 days to complete wells. Rotary tools can complete a well in about 20 days.

Type of drilling equipment.

Fifteen per cent of the work so far completed in this area has been done with rotary rigs and the balance, 85 per cent, with standard rigs. The majority of the rotary rigs in this area have been powered with two 125-horsepower boilers. The size of the engines was 12x12.

Electric power.

The electric power used is supplied by two companies, the Kansas Gas & Electric Co. and United Power & Light Co. Electricity is available in some parts of the field and possibly will be used later for pumping the wells.

Derricks.

The rotary derricks are all steel, 122 feet high. The standard tool derricks are the usual 84-foot type. These wooden derricks are available at the local yards and mills and the steel derricks at the supply stores in Wichita, McPherson and Holyrood.

Drilling mud.

Natural mud is used in drilling the majority of the wells but when the tests reach the Mississippi lime an admixture is advisable because of the gas usually found in this formation.

Casing.

The casing used in the rotary holes has been as follows: Approximately 250 feet of 15½-inch casing is landed and cemented and the 8-inch casing is then landed on top of the pay horizon, which has been found at approximately 3,300 to 3,400 feet. Standard tool rigs use either 20-inch or 15½-inch at 80 feet, 15½-inch or 12½-inch at 350 feet, 12½-inch or 10½-inch at 1,250 feet, 10½ or 8-inch at 1,900 to 2,100 feet, 8-inch or 6-inch at 2,900-3,000 feet, 6-inch or 5-inch at 3,300 feet.

Cementing of casing.

The cementing of the last string of casing in the wells is optional with the operators. However, the majority of the wells completed with rotary tools have had the last string cemented and allowed to set for three days. Pumping in of cement from the top of the hole and between the surface and production casing has been done in some instances.

Screen and liners.

Screens have never been used in this area as the wells have very little gas and it is usually necessary to swab or pump the wells. Some liners have been used in this area in special cases.

Drill stem tests.

It has not been the practice to used drill stem tests as only in a few cases have showings been found in the upper formations. When these are made they used the established testing tools.

Gas hazards and blowout preventers.

The Mississippi lime and the chat formation are known for their gas pressures, and the drilling of wells in this field sometimes requires blowout prevention equipment and method. No elaborate controls are necessary as only a few of the wells have found gas enough to cause a blowout. There are no state regulations requiring blowout preventers.

Straight-hole drilling.

There are no maximum or minimum regulations on deviation from vertical on the holes drilled.

Rig builders and contractors.

Rig builders and drilling contractors are available in Wichita, McPherson and Holyrood.

PRODUCTION PRACTICE

General.

The field is considered to be in its early stage of development as most of the wells are shut down or have only been produced to get a potential gauge. After the wells are completed in most cases they have been shut in. Very few of these flow naturally and they must be swabbed and pumped. Some of the wells have been produced until the storage on the leases is full and they are shut down, waiting for a pipe line connection.

Proration restrictions.

The only restriction in force in the field is an order of the Kansas Public Service Commission, to the effect that all wells must be produced ratably and potential must be taken by pumping with 3-inch tubing.

Completion restrictions.

There is no restriction on the method of completion of the wells. The state dry hole plugger charges a fee of $25 to plug and abandon wells.

Method of completion.

Up to the present time the wells have been completed as the producer wishes. As the wells do not flow it has not been necessary to install chokes.

Gas-oil ratios.

Gas-oil ratios are given no consideration as the majority of the wells have very little gas.

Character of the oil.

The gravity of the oil ranges from 37 to 46 degrees A.P.I. corrected.

Separators and tankage.

Low-pressure flow tanks of 675 bbls. are used. Field and lease storage tanks are 500 bbls. In most cases a battery of four 500-bbl. tanks is used. Additional storage is needed in

FASTER DEPENDABLE

RUSSELL ELLSWORTH HOLLYWOOD BARTON McPHERSON BURRTON WICHITA

BRIDGEPORT'S SERVICE

SILVER ANNIVERSARY

FROM THREE KANSAS STORES
Carrying
Complete Rotary and Cable Equipment

Depend upon this old, reliable house for ALL your needs, either Rotary or Cable. If your time is valuable—then call Bridgeport FIRST—and save not only TIME—but MONEY. Bridgeport's reputation is back of every sale—or rental. Bridgeport's strong financial position makes our Guarantee worth something—for the life of the tool.

Check over the Bridgeport products listed—then remember—WE STOCK WHAT WE ADVERTISE. We'll cheerfully accept your Collect Call—from anywhere—Day or Night.

Forged Steel 3-Point Double Rotary Reamers

Made of Chrome Nickel Steel and heat treated. Cutters chrome nickel steel, carburized, with bearing pins and thrust washers of alloy steel. Safety cutter pockets machined integral with body; no welded parts to work loose. All joints turned to A.P.I. specifications.

Hychrome Rotary Subs

Have tool joint boxes and Rock Bit pin ends. May be used to convert Bridgeport Rock Bit collars into fish tail collars. (Disc or Drag Bit.)

Rotary Drill Collars

Made of Special forged steel. Perfectly designed. Made in 30', 24' and 12' lengths, in 9", 8" and 6¼" O.D. for 12", 11", 8¼"x8¾" Rock Bits. Tool joint threaded boxes on top; bronze lined friction joint boxes on bottom.

Forged Steel Adapters and Adapter Nuts

For Rotary Hose and Swivel Connections. Made of high grade forged steel. Will withstand more abuse and give better service than cast parts ordinarily furnished. Easily set up with a hammer, no wrenches required.

Hychrome Casing Shoes

Made of the highest grade steel and heat treated. Stand up under crushing force of heavier and longer strings of casing. 100% more tensile strength than ordinary shoes.

AQUAGEL AND BAROID

Bridgeport carries complete stocks of Aquagel and Baroid, the well-know drilling muds, at all its branch stores. These products can also be purchased through your supply stores. Beware of inferior muds now on the market. Call us collect, and ask for Aquagel or Baroid.

Hychrome Boxes and Pins

No drilling stem is complete without Hychrome boxes or pins. Insure Safety and Economy. Reduce fishing jobs and make up better joints. Prices greatly reduced.

Hychrome Drilling Bits

No more jumping off pins. Made of high grade steel, heat treated. Pin has 50% more tensile strength and is 50% harder than the pin on the best bits manufactured by any other process. Prices greatly reduced on New Bits.

SWAN UNDERREAMERS
Regular and New Type

They have no equal in performance and quality. Used in all fields, domestic and foreign. Made in sizes from 3" to 15½". For rent or sale. Your old reamer, regardless what make, can be traded in on a Swan Underreamer of same size, at a great saving to you.

Bridgeport Tapered Taps

With a body Tougher than a Rhino's Hide—threads Harder than the finest Blade, Bridgeport Tapered Taps offer you a tool that will really "Stand the Gaff!" Always uniform in quality, properly heat treated bodies eliminate fear of breakage; properly carburized and heat treated threads assure standing up under the hardest strain, meaning longer, trouble-free service.

Bridgeport Bailers

All Bridgeport Bailers are made with forged bottoms and darts. No cast steel used. The larger sizes made with liners, to reinforce the bottom of tube. Will outlast any other make bailer. All bottoms riveted and welded. Prices on complete Bailers and Bailer Tubes reduced 50%.

DISTRIBUTORS FOR

Pittsburgh Steel Corp.
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Hychrome Prosser Rope Sockets

Bridgeport Hychrome Prosser Sockets are made of a special steel and heat treated. They will outwear two ordinary make sockets, at a slightly higher cost.

Bridgeport Improved Pumping Hanger and Polished Rod Clamps

Made by Bridgeport, for regular and underslung beam. Ample strength to lift 150,000 lbs. Bearings best grade bronze, bearing boxes with large oil reservoirs, protected from rain and dust. Polish Rod Clamp is of wedge type, applied without tools. No bolts. Gripping power increases with rod load. No more polish rods or smashed hangers, if you use our hangers and clamps. Low priced. Quantity discounts.

USED TOOLS AND EQUIPMENT

When good business judgment dictates the purchase of used equipment—get Bridgeport's bargain first. Large stocks of dependable used tools and equipment, casing, line pipe and drill pipe and tubing always on hand. Wire or phone your nearest Bridgeport Branch—COLLECT—24-hour Service.

BRIDGEPORT MACHINE COMPANY
Wichita, Kansas

Branches Conveniently Located in All Active Mid-Continent Oil Fields

SERVICE ON NEW FIELDS

Barton-Ellsworth Arch Field, Kansas

(Continued from Preceding Page)

most cases as the wells are only produced until the storage is filled.

Water conditions.

Sulphur water has made its appearance in several of the wells, but only in small quantities and the disposal of this water is by evaporation in ponds.

Paraffin.

None.

Cut oil.

Some of the wells make some cut oil. This oil is treated and becomes pipe line oil. Wells making water and sulphur are equipped with separators.

Artificial lifting conditions.

There are no artificial methods used in this area. The wells are swabbed or pumped.

GENERAL CONDITIONS

Principal lease holders.

Gypsy Oil Co., Empire Oil & Refining Co., Atlantic Oil Producing Co., Phillips Petroleum Co., Midwest Refining Co., Barnsdall Oil Co., Skelly Oil Co., Slick, Pryor and Lockhart; Darby Petroleum Corp., Shell Petroleum Corp., Mid-Kansas Oil & Gas Co., Vickers Petroleum Co., Magnolia Petroleum Co., Continental Oil Co., Amerada Petroleum Corp., Dickey Oil Co., George Hinkle, Sinclair Prairie Oil Co., Mid-Continent Petroleum Corp., and a number of independent operators with checkerboard leases.

Character of leases.

The majority of the leases are for 10 years without any drilling obligations but carry a straight rental clause. About 50 per cent of the area is under lease in large blocks.

Locations.

After the first oil well was in, the Kansas Public Service Commission ordered all wells to be drilled in the center of 40-acre tracts, but this order was rescinded before many wells were drilled. The majority of the wells have been drilled in the center of 10-acre tracts.

Operating companies on July 1.

Derby Oil Co., Hilligoss, Slick, Pryor & Lockhart; Gypsy Oil Co., Vickers Petroleum Co., Aylward, Robertson-Hinkle, Smith and Ash, Muth Brothers, Shell Petroleum Corp., Carter Oil Co., Empire Oil & Refining Co., Phillips Petroleum Co., Producers & Refiners Corp., Boyle-Grossman, Mid-West Refining Co., Magnolia Petroleum Co., and Werbros Development Co.

Salt water.

Salt water is found in small quantities in edge wells.

Gas.

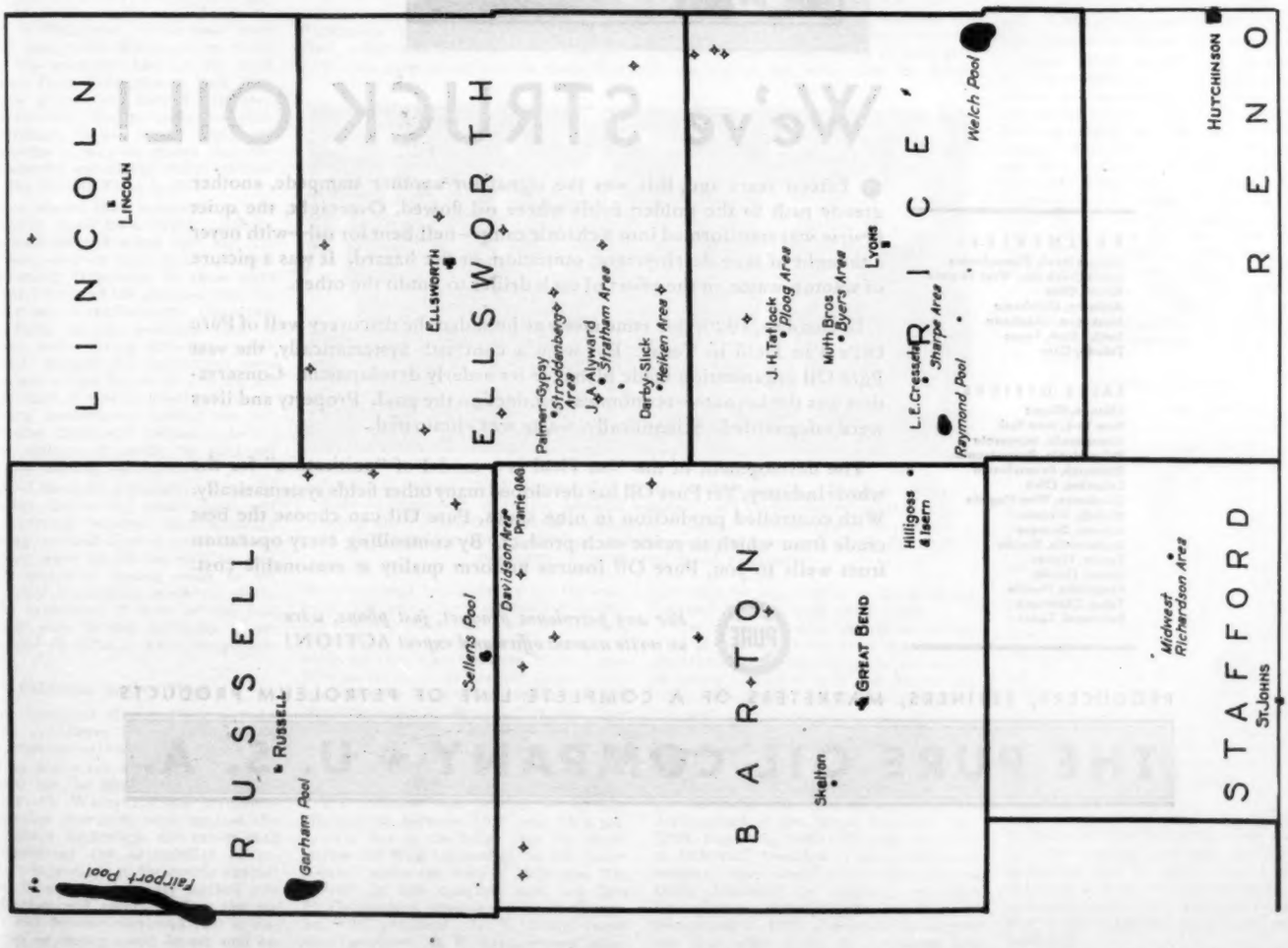
There is very little gas in any of the completed wells.

Gasoline plants.

None.

Electric lines.

There are two electric lines in the area, supplied by Kansas Gas & Electric Co. and United Power and Light Co.



EVENTS IN THE LIFE OF PURE OIL · · · EPISODE NO. 4

We've STRUCK OIL!

● Fifteen years ago, this was the signal for another stampede, another greedy rush to the golden fields where oil flowed. Overnight, the quiet prairie was transformed into a chaotic camp—hell-bent for oil—with never a thought of sane development, sanitation, or fire hazard. It was a picture of wanton waste, in the effort of each driller to outdo the other.

In October, 1929, this same message heralded the discovery well of Pure Oil's Van Field in Texas. But what a contrast! Systematically, the vast Pure Oil organization made plans for its orderly development. Conservation was the keynote—economical production the goal. Property and lives were safeguarded. Scientifically, waste was eliminated.

The development of the Van Field is a model of "unitization" for the whole Industry. Yet Pure Oil has developed many other fields systematically. With controlled production in nine states, Pure Oil can choose the best crude from which to refine each product. By controlling every operation from wells to you, Pure Oil insures uniform quality at reasonable cost.

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PRODUCERS, REFINERS, MARKETERS OF A COMPLETE LINE OF PETROLEUM PRODUCTS

THE PURE OIL COMPANY · U. S. A.

Unique Company Has Been Important Factor in Bettering Drilling and Production Methods

By L. G. E. BIGNELL
Petroleum Engineering Editor

This is to be the story of an organization that has won for itself a well-recognized place in the petroleum industry because its founder foresaw the possibilities of developing a process to apply to rotary drilling that made the operations more efficient and less costly, and at the same time permitted deeper holes to be drilled to reach the lower producing formations. The trend of drilling from cable tools to a combination of cable and rotary tools and finally to the use of rotary equipment alone has made it possible to drill holes to depths below 10,000 feet and the limit has not yet been reached. Because of the development of the rotary methods the producers have been able to keep pace with the ever increasing demand for crude oil and because of the reduced drilling costs the deeper wells have been made possible.

In 1919 Erle P. Halliburton came to Oklahoma from California and started an oil well cementing service in the Hewitt Field in Carter County, where the rotary method of drilling wells was being attempted in Oklahoma. Cable tools were generally used in the Mid-Continent fields because the operators had for the most part come from Pennsylvania and eastern fields where that method had been used exclusively. Except for a few scattered attempts to use rotary equipment in Oklahoma it may be stated that the first successful use of the rotary method was in the Hewitt Field in 1919.

History shows that operators in the oil industry have been rather slow to change methods and adopt new and unproven processes or equipment and this was especially true back in those days before the advent of the engineer into the producing end of the industry. Operators in the fields in the southern part of Oklahoma were having difficulties with cable tools because the formations were of a character that balled up and sluffed so badly that it was necessary to carry the casing immediately behind the bit. It was also frequently necessary to set separate strings of casing to shut off each water sand as encountered.

Many of them were therefore seriously considering the use of rotary tools and some operators believed that although the rotary method offered many advantages they were not of the opinion that a single string of casing could be set which would accomplish successful water shutoffs, especially in view of the fact that they were having difficulty in securing good shutoffs in wells using cable tools.

California Method Tried

About this time Mr. Halliburton, who had had experience in cementing wells by the Perkins method in California, appeared on the scene and cemented a rotary well for the Skelly Oil Co. in the Hewitt Field. While this was a successful job some operators were against the use of rotary methods to the extent that they considered the advisability of securing an injunction in the courts against its use. However, the rotary method was tried further and accepted after the operators had become convinced that a single string of casing could be set and cemented and do the work of several separate strings as formerly used in cable tool work.

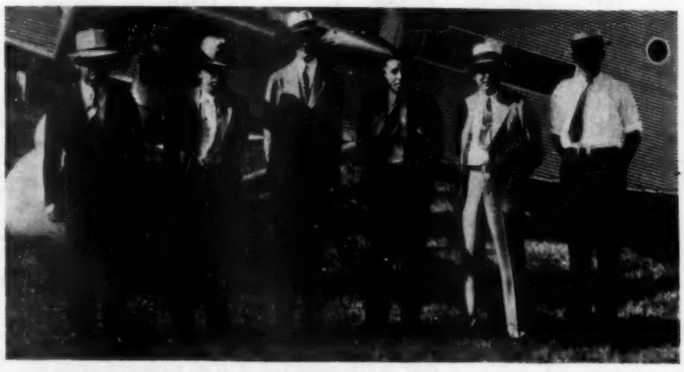
As the use of the rotary expanded it was found that the shutoff with the single string of pipe was more successful than with formation shutoffs with several strings. Later, about 85 per cent of the drilling wells were being "dug" with rotary tools and the Walters, Fox, Graham, Duncan, Cement and Chickasha, and other fields in northern Oklahoma soon followed.

These experiences developed the fact that successful rotary operations were dependent upon oil well cementing and it naturally followed that oil well cementing has depended upon the development of the rotary drilling practice for its growth and success.

Small Beginning

The original oil well cementing outfit used in Oklahoma consisted of a small steam-driven reciprocating pump and mixing box mounted on the bed of a horse drawn wagon. Steam was secured from the boilers used in drilling the well. Mixing of cement was done by hand. The two plug method of cementing was used and the general operation followed was much as it is today, the principal difference being in the abandoning of the time element and the size of the equipment.

Following his success in Hewitt, Mr. Halliburton next moved to the Duncan Field, which was active in 1920, and met with such pronounced success there that



Executive staff, Halliburton Oil Well Cementing Co., Duncan, Okla.: Left to right—B. F. Saye, general counsel; A. D. Stoddard, chief engineer; H. T. Crain, secretary-treasurer; Erle P. Halliburton, president; H. C. Gloeckler, vice president and general manager, and C. P. Parsons, manager of sales and field engineer

the permanent headquarters for the company with shops were established in that town where they are still maintained. This choice of site of central plant was made at that time because it was possible to reach easily several active fields where rotary drilling was being used extensively and the service, that has since become so well known and representative of the Halliburton Oil Well Cementing Co. in all fields, was at that time established.

The business was carried on by Mr. Halliburton between 1919 and 1924 personally, but in the latter year the Halliburton Oil Well Cementing Co. was incorporated under the laws of Delaware. The officers of this company now are Erle P. Halliburton, president; H. C. Gloeckler, vice president; H. T. Crain, secretary-treasurer; B. F. Saye, general counsel; A. D. Stoddard, chief engineer, and C. P. Parsons, manager of sales. Most of these men have been with the organization since it was formed.

The board of directors is made up of Erle P. Halliburton, Los Angeles, Calif., chairman; Wirt Davis, Dallas, Tex.; W. W. Fondren, Houston, Tex.; H. C. Gloeckler, Duncan, Okla.; L. C. Hawkins, Oklahoma City, Okla.; C. P. Parsons, Duncan, Okla., and W. B. Pyron, Los Angeles, Calif.

Expansion Steady

The use of the rotary method gradually spread through Oklahoma and the Tonkawa Field was the first pool in northern Oklahoma in which it was tried. As in the Hewitt Field some of the operators objected strenuously to the use of the rotary tools and brought the matter to the attention of the Corporation Commission of Oklahoma. One faction felt that as there were three separate producing sands in the field a single string of casing set with rotary tools would not protect all as well as the several strings set by cable tools. A soon as the operators and authorities felt that this could be done by properly cementing the casing, the use of rotary tools gained favor.

Following the Tonkawa development from 1923 to 1928 the application of rotary tools spread quickly in northern Oklahoma and found widespread use in Garber, Cromwell, Wewoka, Seminole and Oklahoma City. However, it was the usual practice in the earlier fields to only drill to the top of the sand with the rotary and then set and cement a string of casing and drill in with cable tools.

The operators and the state authorities in charge of oil field development gradually gained confidence in the results of rotary work and it is now nearly universal practice to both drill and complete the wells with rotary.

Business Expanded

Rotary drilling had been practiced, especially along the Gulf Coast, more than in Oklahoma and Kansas but with the development of the Mexia Field in 1921-1923, Powell in 1923-1924 and Wortham in 1924-1925 branches of the Halliburton company were established in each of those fields. Likewise the company expanded into Arkansas during the activities at Smackover in 1924 and gradually worked out into other fields in Louisiana and along the Gulf Coast until now there are branches in the states of Oklahoma, Texas, Louisiana, Arkansas, Mississippi, Kansas and New Mexico.

This growth is well illustrated by the following table showing the average number of cementing outfits in use each year since 1924 when the company was organized.

Year—	Outfits
1924	30
1925	31
1926	42
1927	52
1928	56
1929	65
1930	72
1931	73
1932	75

Not only has the company expanded in the number of outfits in active service but during the period 1924 to 1929 effort was made to cover the Mid-Continent area in a geographical manner. It was essential that cementing outfits be located where they could easily and quickly reach fields where wells were being drilled.

When this type of expansion had been taken care of the next step which occurred during the period 1929 to date was improvement in the engineering and mechanical details of the equipment used. With the increase in the depth of wells being drilled there was a demand for improved mechanical details and heavier equipment, until it is now possible to develop 3,500 pounds per square inch working pressure in actual field use.

Many other details and accessories have been developed to go along with the actual well cementing operations such as cement mixer, well measuring device, full hole cementers, multiple stage cementers, cement lined screens, oil well pumps, bottom hole control and flowing devices for bottom of wells. This equipment is manufactured in the shops at Duncan where about 90 men are now employed. In addition to that force there is a field force of about 175 men and an office force of 25 or 30. At Houston and Kilgore, Tex., and Oklahoma City, Okla., field shops are maintained for the simpler type of repairs but all complete overhauling and rebuilding of equipment is done at Duncan only.

Service Anywhere

The officials of the Halliburton Oil Well Cementing Co. pride themselves upon the fact that their outfits can go anywhere, anytime and do any kind of a well cementing job, as well as being called upon from time to time to establish circulation in wells where the drill pipe has become stuck; mixing mud materials; killing wild wells by mixing and pumping mud into the hole under pressures higher than the well pressures and in equalizing pressures on both sides of valves that have become frozen because of unequal pressures on the well side only.

This latter operation consists of building up a pressure on the top side of the frozen valve that is equal to that developed by the well, sometimes as high as 2,500 pounds per square inch, and after the gate has been opened to gradually equalize pressures in the well fittings and then disconnect the heavy duty pumps.

In many of the boom oil towns the Halliburton Oil Well Cementing Co. has had the original and only fire fighting apparatus and in many cases has been called upon to use its high pressure pumps to handle water with which to fight fires that might otherwise have been very destructive.

To facilitate movement of supervising

officials and engineers of the organization the company owns and operates three modern airplanes, one a six-place machine and the other three-place planes. These in addition to the large machine owned by Mr. Halliburton personally.

Personnel of the Organization

In addition to the officers of the company there are superintendents and assistants located at central points in every district. Gale D. DeWitt in Oklahoma City has charge of Oklahoma and North Texas; W. H. Baker is in Tyler for East Texas. Mr. Baker has three assistants, Hobson Buie, at Longview, H. F. Clark at Kilgore and D. R. Yager at Joinerville, Tex.

W. R. McClendon in Houston has charge of the Gulf Coast district and Jay Taylor at Amarillo, Tex., for West Texas. Louisiana, Arkansas and Mississippi is under W. F. Chisholm of Shreveport, La., and George Hoisington in Wichita, Kans., supervises Kansas.

There are a number of special men in the employ of the company including Hayden Robert, chief chemist, Duncan; C. P. Parsons, field engineer, Duncan, and A. D. Stoddard, chief engineer, Duncan.

Recent Development

To meet conditions that have developed in the East Texas Field the Halliburton Oil Well Cementing Co. has recently designed and built a portable compressor plant that will build up 1,000 pounds pressure and is used to kick-off wells either when brought in or after they have gone dead during production.

With this outfit it is possible to force air or gas into the well between the tubing and casing or into the tubing and permit it to discharge through the annular space between tubing and casing. The well head hookup is such that the well can be rocked in either direction and in this way the dead oil that has accumulated in it can be discharged to the surface and the well brought into production.

The company has been called upon from time to time to send outfits to distant points where wildcat wells were being drilled and the trucks have gone to South Dakota and Montana, and in March, 1931, an outfit made a five-day and four-night trip without stop from Oklahoma City to Tioga County, Pennsylvania, to service a well there.

Outfits have been frequently sent by barge to do cementing jobs in wells drilled in deep water or on islands located at some distance from the main land. Such jobs in the Gulf Coast area of Louisiana have caused two trucks to run off of the barges upon which they were being transported and disappear into the water from which they were later fished out, dried and put back into service. Such accidents cost the company additional money but are all accepted as part of the hazards in rendering service to the oil companies.

The system of mixing cement employed by the Halliburton Oil Well Cementing Co. is probably the fastest devised by any cementer in any industry as illustrated by the fact that with their super-outfit they have handled 250,000 pounds of cement, or 2,500 sacks, in 48 minutes. This cement was mixed and pumped into the casing in that time and it required some 20 minutes longer to place it behind the casing. When it is considered that this amount of cement will make three big carloads some idea may be secured of the speed with which a Halliburton outfit will mix and place cement.

With deeper drilling higher temperatures have been encountered in wells and this has presented a problem in cementing because with the increased heat the set of the cement is hastened. To overcome this tendency on the part of the mixed cement large quantities of ice are used to chill the hole and the water used in mixing the cement and the jobs have been handled successfully.

Interstate Pipe Line Companies Carried Less Crude in 1931

Pipe line companies engaged in the interstate transportation of crude petroleum and refined products and reporting, consequently, to the Interstate Commerce Commission, transported 986,953,284 bbls. during 1931, a decrease of 185,211,796 bbls., or 15.8 per cent, from the 1,172,165,080 bbls. transported during 1930. Of the total transported during 1931, 968,671,849 bbls. were reported as crude oil and 18,281,435 bbls. as refined oils. Although the major portion of the refined oils transported consisted of gasoline, or motor fuel, some quantities of natural gasoline, gas oil, and unfinished oils undoubtedly are included, as the Bureau of Mines annual statement for 1931 reports the delivery of only 12,766,000 bbls. of motor fuel by pipe line.

The total number of miles of line operated as 93,090, of which 51,287 miles were trunk lines and 41,803 miles were gathering lines. Pipe line mileage increased by 4,363 miles over the 1930 total. The investment in lines increased from $772,710,908 in 1930 to $845,049,923 in 1931. Pipe line operating revenues totaled $222,944,026, or an average of 22.6 cents per barrel of oil transported, in comparison with the 1930 revenues of $237,910,083, an average of 20.3 cents per barrel transported. The net income decreased from $123,741,282 in 1930 to $120,738,172 in 1931, an average of 10.6 cents per barrel for 1930 and 12.2 cents per barrel for 1931.

Dividends amounting to $125,280,913 were declared by the 51 pipe line companies reporting, in comparison with dividends of $132,826,432 declared during 1930 by a slightly different group of companies. Of the 1931 dividends, $32,996,090 was paid from current income and $92,284,823 from surplus.

The number of persons employed by interstate pipe line companies during 1931 totaled 19,854, a decrease of 9.5 per cent from the total of 21,948 employed during 1930, while the total compensation paid declined from $40,474,914 in 1930 to $36,446,865 during 1931, a decrease of 9.9 per cent. The average wage paid during the two years, however, did not vary greatly, being $1,844 in 1930 and $1,836 in 1931.

The accompanying table records in detail the principal items reported by the 51 interstate pipe line companies to the Interstate Commerce Commission.

SELECTED FINANCIAL AND OPERATING DATA FROM ANNUAL REPORTS, YEAR ENDED DECEMBER 31, 1931, FILED BY PIPE LINE COMPANIES WITH INTERSTATE COMMERCE COMMISSION

Name of company	Miles of line operated: Trunk lines	Miles of line operated: Gathering lines	Investment in pipe lines	Oil transported (bbls.): Crude oil	Oil transported (bbls.): Refined oils	Oil transported (bbls.): Total	Pipe line operating revenues	Net income	Div. declared from current income and from surplus	Total employes: No. in service	Total employes: Total compensation
Ajax Pipe Line Co.	785.48	.....	13,160,399	21,902,620	.....	21,902,620	7,076,052	4,354,280	2,600,000	1,129	454,686
Arkana Transit Corp.	32.21	.....	225,752	272,120	.....	272,120	34,015	25,947	26,000	4	6,228
Arkansas Pipe Line Corp.[1]	66.85	64.81	1,024,876	8,009,565	.....	8,009,565	890,302	738,990	.....	42	57,856
Atlantic Pipe Line Co.	921.94	273.96	20,361,933	25,071,736	147,810	25,219,546	6,726,953	3,554,582	.....	331	768,103
Atlas Pipe Line Co., Inc.[2]	57.27	63.24	1,534,760	4,985,303	.....	4,985,303	808,539	571,245	.....	96	131,959
Bradford Transit Co.	.....	775.59	1,858,134	4,256,598	.....	4,256,598	494,820	125,914	210,000	101	206,555
Buckeye Pipe Line Co.	1,487.00	5,776.00	39,767,517	40,861,611	.....	40,861,611	3,954,849	978,636	800,000	,821	1,459,789
Consolidated Pipe Line Co.	163.90	90.30	1,277,246	1,363,012	.....	1,363,012	221,984	*73,629	.....	67	68,757
Continental Pipe Line Co.	469.19	740.11	7,811,396	18,097,513	.....	18,097,513	1,964,495	561,310	.....	189	349,542
Cumberland Pipe Line Co.[3]	.....	1,165.19	11,712	1,454,157	.....	1,454,157	324,853	*61,617	30,000	140	192,649
Empire Pipe Line Co.	494.67	452.57	8,905,882	39,511,743	29,691	39,541,434	3,849,625	2,194,716	2,100,000	340	473,291
Eureka Pipe Line Co.	166.03	4,490.02	11,015,323	8,589,005	.....	8,589,005	1,870,200	205,622	200,000	512	913,584
Great Lakes Pipe Line Co.[4]	1,237.00	.....	15,146,493	.....	4,419,191	4,419,191	2,634,008	1,339,105	.....	339	583,234
Gulf Coast Pipe Line Co.	.....	5.50	22,601	3,339,434	.....	3,339,434	230,881	103,466	1,500,000	24	67,099
Gulf Pipe Line Co.	3,426.32	1,059.76	54,569,943	45,867,198	.....	45,867,198	13,676,622	8,514,943	3,500,000	973	2,067,358
Gulf Pipe Line Co. of Oklahoma	703.99	748.65	12,333,995	16,208,230	.....	16,208,230	3,947,350	2,192,036	3,500,000	339	648,392
Gulf Pipe Line Co. of Pennsylvania	783.44	.....	12,336,220	6,896,120	.....	6,896,120	3,454,380	2,309,479	.....	122	263,394
Humble Pipe Line Co.	4,220.46	2,302.92	86,577,151	183,294,582	.....	183,294,582	26,595,715	16,336,642	12,500,000	1,978	4,307,007
Illinois Pipe Line Co.	1,948.23	3,801.17	44,491,359	67,508,183	.....	67,508,183	10,597,800	4,466,604	3,600,000	995	1,812,754
Imperial Pipe Line Co., Ltd.	296.58	.....	2,040,483	6,929,597	.....	6,929,597	669,295	278,501	.....	56	132,136
Indiana Pipe Line Co.	650.00	171.00	5,253,309	16,297,242	.....	16,297,242	889,262	292,135	300,000	168	300,839
Magnolia Pipe Line Co.	2,839.18	2,150.34	68,664,432	47,710,259	1,712,375	49,422,634	18,293,602	10,380,054	9,240,000	1,508	2,440,747
Maryland Pipe Line Co.	(5)	(5)	161,714	.....	.....	.....	.....	*3,444	.....	.....	.....
National Transit Co.	1,313.06	2,487.78	8,956,882	12,194,267	.....	12,194,267	1,591,116	387,409	509,000	548	897,310
New York Transit Co.	121.00	196.00	1,039,023	2,181,138	.....	2,181,138	194,987	84,358	100,000	102	82,872
Northern Pipe Line Co.	630.00	.....	3,008,820	5,640,171	.....	5,640,171	290,160	121,415	140,000	102	134,770
Oklahoma Pipe Line Co.	1,186.65	824.84	23,450,227	45,075,216	.....	45,075,216	6,022,455	2,547,230	3,000,000	468	1,026,058
Phillips Pipe Line Co.[6]	765.99	.....	12,202,113	.....	3,959,211	3,959,211	1,666,775	808,317	.....	194	137,113
Pierce Pipe Line Co.	99.50	23.00	1,603,257	1,288,588	.....	1,288,588	141,338	*9,079	2,313,868	55	30,879
Prairie Pipe Line Co.	5,982.39	6,894.66	107,294,183	37,347,723	.....	37,347,723	9,924,155	2,940,065	6,075,000	1,344	4,435,830
Pure Oil Pipe Line Co., Ohio	44.35	433.50	2,154,699	11,061,971	.....	11,061,971	1,412,860	1,079,126	852,000	149	251,735
Pure Oil Pipe Line Co., Pennsylvania	56.66	.....	51,191	676,185	.....	676,185	103,158	15,745	82,500	(3)	(3)
Pure Oil Pipe Line Co. of Texas	409.50	451.56	7,244,746	12,979,880	.....	12,979,880	1,207,187	64,352	.....	153	452,395
Pure-Van Pipe Line Co.[7]	210.92	46.50	4,743,230	4,721,381	.....	4,721,381	717,716	399,347	375,000	112	36,949
Shell Pipe Line Corp.	3,380.39	563.19	51,613,843	29,076,172	.....	29,076,172	22,939,206	14,851,823	27,200,000	979	1,810,562
Shreveport-El Dorado P. L. Co., Inc.[8]	87.13	87.50	2,313,763	665,979	.....	665,979	169,547	*157,544	.....	231	95,654
Sinclair Texas Pipe Line Co.	367.20	194.80	6,597,961	29,662,929	.....	29,662,929	4,307,843	3,268,096	.....	408	593,637
South West Pennsylvania Pipe Lines	310.01	1,615.73	4,407,871	9,536,520	.....	9,536,520	762,892	155,499	140,000	203	330,237
Southern Pipe Line Co.	361.07	.....	2,083,058	4,513,304	.....	4,513,304	452,310	179,008	200,000	89	136,675
Spartan Refining Co.[9]	87.13	87.50	2,316,403	812,975	.....	812,975	136,110	*200,757	.....	176	212,591
Standard Pipe Line Co., Inc.	1,575.54	374.87	29,265,831	46,437,427	.....	46,437,427	7,777,224	3,173,827	12,500,000	764	996,417
Stanolind Pipe Line Co.	4,705.51	2,611.75	84,020,882	39,586,769	.....	39,586,769	24,776,959	11,631,293	11,233,760	2,316	3,647,785
Sun Oil Line Co.	97.95	.....	678,281	.....	797,226	797,226	84,492	48,551	47,000	28	13,571
Sun Pipe Line, Inc.	39.98	.....	752,338	.....	487,287	487,287	56,603	18,533	18,000	31	26,437
Susquehanna Pipe Line Co.[10]	547.60	.....	5,206,078	.....	2,422,288	2,422,288	939,387	287,966	269,600	128	265,268
Texas-Empire Pipe Line Co. (Ill.)	442.11	.....	6,917,556	19,763,774	.....	19,763,774	3,289,765	2,309,467	2,309,525	58	127,318
Texas-Empire Pipe Line Co. (Okla.)	463.00	.....	9,777,506	19,763,774	.....	19,763,774	5,776,513	6,300,726	6,309,260	99	233,085
Texas Pipe Line Co. (Texas)	3,841.44	1,271.20	56,489,615	44,747,854	3,047,858	46,795,712	14,876,095	9,353,765	10,000,000	780	1,848,652
Texas Pipe Line Co. of Oklahoma	707.45	633.07	6,920,047	12,147,102	240,651	12,387,753	1,861,667	653,712	650,400	157	382,856
Tide Water Pipe Co., Ltd.	1,244.33	118.64	9,553,505	5,459,771	.....	5,459,771	1,431,370	818,301	750,000	139	275,668
Tuscarora Oil Co., Ltd.	594.67	.....	7,048,035	4,905,151	2,017,837	6,922,988	828,534	221,404	.....	138	267,574
Total	51,286.64	41,303.47	$845,049,923	968,671,849	18,281,435	986,953,284	$222,944,026	$120,738,172	$125,280,913	19,854	$36,446,865

[1]Report for period March 18 to December 31, 1931; figures for operations cover the period May 1 to December 31, 1931.
[2]Report for period May 4 to December 31, 1931.
[3]Report for nine months ended September 30, 1931.
[4]Figures for operations cover the period March 1 to December 31, 1931.
[5]Not in operation.
[6]Figures for operations cover the period March 16 to December 31, 1931.
[7]Report for two months ended December 31, 1931.
[8]Report for three months ended March 31, 1931.
[9]Report for nine months ended December 31, 1931.
[10]Figures for operations cover the period February 5 to December 31, 1931.
*Deficit or other reverse item.

New Deep Test Crockett-Reagan County Area; Thirteen New Locations in West Texas

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Aug. 8.—Another deep test is to be drilled in the Permian Basin, and the second test for the Crockett-Reagan County wildcat area. This test is expected to be drilled in Section 4, Block 7, on the same tract on which the late Carl G. Cromwell and associates spudded an Ordovician test a year ago, which was abandoned after his accidental death in Pennsylvania. Location is approximately 6 miles south of the Big Lake Field in which there are now 10 wells producing from the Ordovician lime, and in the Skelly-University Pool in which there are two small producers. T. W. Carter and others will drill the test. The Stanolind Oil & Gas Co. and others are drilling an Ordovician test approximately 21 miles farther to the southeast in Crockett County. Both are exceptionally interesting tests and will furnish a great amount of geological information on the area, and possibly for the entire basin, whether or not they prove producers from the deep pay. The Powell or World Pool is located almost midway between the two tests. It is producing from lime found a little below 2,500 feet.

There were 13 locations staked in West Texas this week, the majority of them field locations, with Ward County getting 7 of the 13. Terrell County, in which there are now six tests which have been standing shut down for many months, is to have another wildcat test.

Ward County

Renaud and Prettyman and others' No. 1 University, in Section 4, Block 16, wildcat test south of the O'Brien Pool, northern Ward County, is drilling at 2,590 feet with last 54 feet showing all sand and oil and gas. A second test is to be made at 2,600 feet. Drilling is progressing slowly, with the hole loaded with water. The first test was made at 2,515 feet after topping the upper sand at 2,472 feet. It had only a showing of oil from this sand. Elevation is 2,623 feet and is running practically normal.

Gaines County

McElreath and Suggett and others' No. 1 J. A. Sparks, wildcat drilling in western Gaines County, also struck some gas during the week. Fifty-two thousand feet of gas was tested in this wildcat at 3,110 feet. It is now drilling below 3,350 feet. It is in the NE cor., Section 397, Block G, C.C.S.D.&R.G.N.G. Survey, and is one of the most interesting tests going down in the Permian Basin.

Howard-Glasscock Area

Some time ago operators in the Howard-Glasscock County area asked the Railroad Commission for a new gauge of their wells in that field, after the daily potential taken by the supervisor proved that water had also been gauged with the oil thereby increasing the daily potentials of the wells, whereas the real potentials should have been less than gauged previously. Now the operators are being canvassed by mail, asking that a general meeting of the operators be held; that the wells be gauged for four days for potentials, and that the wells again be gauged for six hours. The latter method of gauging was rejected in July because potentials indicated some basic sediment and water was gauged with the oil. But the present method has made it even worse.

The official daily potential production as of August 1, from 521 wells producing from the three pay horizons, was 72,951 bbls. The maximum daily production allowance is 15,000 bbls. The area has been one of the hardest hit in West Texas, pipe line companies continuously cutting down their daily takings.

Added to the grievance of continuous pipe line curtailment and false potentials is the increased weight of taxes this year. One operator stated that his taxes had been increased approximately $54,000 on one 80-acre lease in this pool, and this in the face of smaller production, and older and partially drained lease, and a decrease in other costs and inventories.

Masterson-Shearer Pool

W. B. Hagan, operator and producer of San Angelo and one of the owners of the Paramount refinery at San Angelo, has purchased the Atlantic Oil Producing Co.'s No. 1 Shearer in the shallow Masterson-Shearer Pool in Pecos County and will truck the oil from the well, which has no outlet, to a loading rack on the Santa Fe railroad at Baldridge, shipping it by train to San Angelo.

The well has been producing into tanks since its completion in June, 1930, and about 1,000 bbls. in the tanks was included in the sale, along with the southwest 80 acres of Section 107, Block 10, H.&G.N. Survey, in which the well is located. There is one other well in the area, owned by Monte Warner and Cranfill & Reynolds. Pay is found in these wells around 1,440 feet.

Crane-Upton

Pipe line nominations in the Crane-Upton County areas have also been reduced, curtailing the allowance from 16,700 bbls. to 13,259 bbls. daily beginning August 1. There were 599 wells in the area when the new schedule went into effect, which cuts the daily well allowable to 22.14 bbls.

Curtailing pipe line takings in the sulphur oil producing counties of West Texas has reflected in wildcatting and field drilling activities, operators deeming it useless to drill in the district and better to operate in some other district from which the purchasing companies will buy and run their oil, if they discover any.

Irion County

Straughn & Adkins' No. 1 Kinser, which has been drilling for the shallow production found in Irion County, struck fresh water this week and started gushing a solid stream through 12½-inch casing, consequently will be completed for a water well, and rig skidded a short distance, and another test started. The artesian water was encountered at 202 feet and is considered worth much more than the brand of wells found in the Tankersly Pool a short distance southwest of Mertzon.

The Big Lake Oil Co., which has just completed its sixth deep producer in the Big Lake Field, Reagan County, is now pinching in its Nos. 2-C, 4-C and 5-C to equalize its total daily production, while its latest well, No. 6-C, continues to gain in production, and while No. 3-C is testing. The well is now flowing over 4,000 bbls. per day.

WICHITA FALLS DISTRICT

There were three producers completed in the Tedford Pool on the Webb-Lemons lands, which are located near the Archer-Jack County line, in southeastern Archer County, this week, making a total of nine producers for this pool, which has produced the largest wells ever developed in this part of the county, northeastern Young or northwestern Jack County. Size of the wells ranges from 10 to 720 bbls. and the pool covers an area 1,500 feet long from north to south and 800 feet wide from east to west. Duncan & White, R. J. Brown and the Texas Plains Oil Co. own the leases in the pool.

One old producer in the Prideaux shallow field of southeastern Archer County is drilling deeper to 1,500 feet to test the top of the Canyon group. Old pay in the well was topped at 664 feet, 670-74 feet. saturated lime at 674-75 feet, and was completed at 680 feet. The old initial production was 4½ bbls. and has been producing 2 bbls. per day on the pump. The well is slightly more than 2 miles northwest of the Kimmell-Woofter No. 10 Golding-Williams old producer, which is also drilling deeper to test the Canyon series.

Underwood Drilling Co. and others' No. 2 Ward in southeastern Archer County is estimated good for 25 bbls. from oil sand logged at 1,046-51 feet, extending the Ward area 1,500 feet southwest.

Deep Oil Development Co.'s No. 1 Crawford and others, 1 mile southeast of the Chalk Hill Pool, is now shut down at 2,254 feet with no showings of oil in the Canyon series. Dry sand was logged from 2,244-54 feet. It will be drilled deeper to test the Strawn sand.

PANHANDLE DISTRICT

Technical men and operators of this district met at Amarillo on August 1 to formulate a plan that will be equitable to all parties in the gas-producing areas of this district, independent operators alleging that purchasing companies are discriminating against them in producing and taking gas from their own (major) leases.

A. T. Kates has leased 12,800 acres in southeastern Collingsworth County for a 3,500-foot test. Rig has been moved in on the NE of Section 43, Block 10, H.&G.N. Survey.

COMPLETIONS IN PANHANDLE DISTRICT

Gray County

Mazda-Shell Petroleum Corp.'s No. 2 Worley Reynolds, top 2,970 feet, initial production 652 bbls. first 24 hours, 590 bbls. second 24 hours, and 498 bbls. third 24 hours, total depth 2,987 feet.

Tedwsco Oil Co.'s No. 3 Morse, top pay 2,465 feet, initial production 235 bbls., total depth 2,515 feet.

BUILD SMALL PLANT

J. A. Floyd and W. S. Fahrmer are reported to be making arrangements to build a small plant at Belle Fourche, S. Dak. The plant will operate with crude oil from the Osage Field of eastern Wyoming.

Wildcat Operations in West Texas

Week Ending August 8

BORDEN COUNTY

Company, well, farm name, section and block—	Remarks—
Westyde Investment Co.'s No. 1 Looney, 990 ft. from S and E, Sec. 15, Blk. 31, Twp. 4n, T.&P. Sur.	S.D. 610 ft.

BREWSTER COUNTY

Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE Sec. 100, Blk. 2, G.C.&S.F. Sur.	S.D. 1,302 ft.
Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 352, W. J. Mitchell Sur.	Rigging up cable tools.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 930 ft. from N and 2,500 ft. from E of Sec. 13, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.

CONCHO COUNTY

Beesley et al's No. 1 Waring Estate, 400 ft. from N and E. Sec. 163, T.&N.O. Sur.	S.D. 1,700 ft.
Simmons et al's No. 1 Schultz, 150 ft. from W and center N and S of E half of J. Weber Sur., Abst. 154.	Spudded and S.D.

CROCKETT COUNTY

Doleman & Moore's No. 1 Ferner, 2,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, I.&G.N. Sur.	Spudded and S D.
Stanolind Oil & Gas Co. et al's No. 1 Todd, 1,870 ft. from N and 1,320 ft. from E, Sec. 67, Blk. UV, G.C.&S.F. Sur.	S.D. 1,000 ft.
The Texas Company's No. 1 B. B. Ingham, 330 ft. from S and 2,310 ft. from E line, Sec. 36½, I.&G.N. Sur.	Drlg. 1,225 ft.
J. D. Young Co.'s No. 1 Shannon, 330 ft. from N and W, Sec. 35, Blk. 1, G.C.&S.F. Sur.	Location.

COKE COUNTY

Mid-Kansas Oil & Gas Co.'s No. 1 Hearn, 980 ft. from S and W, Sec. 271, Blk. 1-A, H.&T.C. Sur.	Drlg. 3,290 ft.

DAWSON COUNTY

Albaugh et al's No. 1 Robinson, C NW Sec. 46, Blk. M, E.L.&R.R Sur.	Shut down.

ECTOR COUNTY

Broderick & Calvert's No. 1 Parker, 330 ft. from N and W, Sec. 15, Blk. 44, Twp. 2s, T.&P. Sur.	Drlg. 1,100 ft.
Duffey et al's No. 1 Rutledge, 990 ft. from S, 330 ft. from E, Sec. 7, Blk. B-15	Location.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W, Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.	S.D. 940 ft.
Phillips Pet. Co.'s No. 1 Scharbauer, 990 ft. from S and 330 ft. from W Sec. 43, Blk. 44, Twp. 2s, T.&P. Sur.	Location.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 35, Blk. 43, Twp. 3s, T.&P. Sur.	S.D. 3,200 ft.
H. F. Wurtz' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW Sec. 16, Blk. 46, Twp. 3s, G. M. M.Br.&A. Sur.	S.D. 3,605 ft.

EL PASO COUNTY

Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.F. No. 7,247	Drlg. 2,985 ft.

FISHER COUNTY

Cranfill & Reynolds' No. 1 George, 400 ft. from N and 380 ft. from E, Sec. 300, Blk. 1, B.B.B.&C. Sur.	Drlg. 5,905 ft.
Southern Oil Co.'s No. 1 Purdue, 990 ft. from S and E Sec. 202, Blk. B, B.B.&C. Sur.	S.D. 1,600 ft.

GAINES COUNTY

McElreath et al's No. 1 Sparks, 330 ft. from N and E Sec. 397, Blk. G	Drlg. 3,260 ft.

GLASSCOCK COUNTY

California Co.'s No. 1 O'Byrne, 2,310 ft. from S, 1,650 ft. from E, Sec. 23, Blk. 33, Twp. 2-s, T.&P. Sur.	S.D. 1,540 ft.

(Continued on Page 47)

Illegal Production of Oil in East Texas District Difficult to Curb With Limited Facilities

By L. E. BREDBERG

DALLAS, Tex., Aug. 8.—Many estimates have been made as to the amount of illegally produced oil which is going out of the East Texas Field every day, estimates ranging from 20,000 to 100,000 bbls. per day being made by men who cover the field every day. So far no convictions have been found in the courts against those who were alleged to have stolen oil. Oil is reported as being moved at night from wells and taken to local refineries.

As a result of the discussion of the matter at the meeting of the board of the American Petroleum Institute at Colorado Springs, President Amos L. Beaty appointed an investigation committee of three men, all of whom are located at Dallas, and who have been in direct contact with the field, production and pipe line transportation since its inception. These men are J. G. (Jack) Pew of the Sun Oil Co., named chairman of this committee, and who is also chairman of the East Texas pipe line committee, which meets every two weeks to take up the problem of connecting to new and unconnected wells by the various pipe line companies operating in the field; Capt. J. F. Lucey, president of the Lucey Petroleum Co. and head of the East Texas Chamber of Commerce oil committee, and Col. L. S. Davidson, commander of the National Guard troops in the field. These men will have a difficult task unless all transportation companies in the field are willing to submit their records to the committee for an audit. It will not be compulsory to submit their records, consequently all will perhaps not be agreeable to the plan.

The railroad committee has indorsed the committee's plans so far as they do not interfere or conflict with laws and work governing the commission. The attorney general's department and the commission have already taken steps, by instituting court proceedings, to bring two companies into court and answer for the alleged production and transportation of oil in excess of the proration allowable of the field.

Companies Installing Meters

The commission has also notified all pipe line companies that meters are to be on lines and connected by August 15, or answer for being dilatory unless special permission has been obtained for an extension of time in which to obtain meters. The following companies have already ordered or installed meters on their lines: Arkansas Pipe Line Co., one meter, connected; Atlas Pipe Line Co., one, connected; Gulf Pipe Line Co., two, connected; Humble Pipe Line Co., three meters ordered; Inland Waterways Pipe Line Co., one meter, connected; Magnolia Pipe Line Co., two meters, one connected and installing a second; Shell Pipe Line Co., one, connected; Sinclair Prairie Pipe Line Co., three meters, two connected and third ordered; Southern Oil & Refining Co., installing one meter; Sun Pipe Line Co., one meter in use for past several months; the Texas Pipe Line Co., one meter, connected, and the Texas-Empire Pipe Line Co., one meter, connected. Tidal Refining Co. delivers to the Magnolia Pipe Line Co.., therefore has not installed any meter on its line from the field. One pipe line company announced that it would not connect any meter, which may result in an interesting test case by the Railroad Commission against the pipe line company.

Another oil well fire was reported on August 7, the third to catch within the past three weeks. Troops who investigated the fire and its cause reported that the well might have been set on fire by the backfire of a truck which was backed up to the well for the purpose of stealing oil. Several men have been apprehended for such alleged theft by tank truck from wells in the field, but the men who apparently were burned while connecting up this well to their truck, have not yet been apprehended. Clothing cut off the men were found near the well, giving absolute proof that the men were injured when the well caught fire. The truck was destroyed. Military authorities stated that theft of oil by this method has become a good-sized racket, and that with only 11 guardsmen and 1 officer on duty in the field at the present time, they cannot hope to cope with the situation.

With only 11 national guardsmen in the field it looks as if preventing the theft, by-passing, and production of oil in excess of the allowable would be almost as impossible as curtailing drilling in the field, something which has not been done, regardless of the large number in favor of it.

It is known that considerable oil has been sold for 35 and 50 cents per barrel, this price being paid for oil run in excess of the allowable.

Pipe Line Connections

The East Texas pipe line committee met at Dallas, August 4, to consider the 30 wells for which applications had been made for connections. The committee obtained connections for all but 3 of these. In all there were 51 wells which were unconnected, but applications had not been made for the other 21 wells. The three wells which were not given connections were isolated wells, and will have to await connection from some line which is later laid into their different areas, unless their owners lay connecting lines. The major purchasers cannot be expected to lay long connecting lines to outpost wells.

It was recommended at the meeting that before an operator drills a well on his lease that he find a purchaser and connection for the oil, and that before an operator who already has production and connection to his lease drills another well that he also ascertain whether the company connected to his lease wants any more oil, and will connect to his new well or wells. This recommendation is similar to the ruling made by the Shell Pipe Line Co. some few weeks ago, and to communications sent to owners of leases to which it was connected.

Withdraws as Purchaser

The Stanolind Pipe Line Co., which has heretofore been a purchaser in the field, using facilities of the Humble Pipe Line Co. to move oil to the Stanolind tank farm at Mexia, has withdrawn as a purchaser in East Texas, the Humble Pipe Line Co. taking 79 connections from it, at the rate of 20 connections per week until they all are absorbed. Taking over these connections by the Humble Pipe Line Co. will no doubt reflect later on the unconnected well situation, the withdrawal of a purchaser in the field making it more difficult for the remaining purchasers to take all the connections applied for every two weeks.

The vast East Texas Field has produced over 179,000,000 bbls. of oil up to August 7 or in 20 months' time has produced more oil than any other field in the State of Texas. There are now over 7,200 wells in the field, 127 new ones having been added to the field this week, while 124 locations were staked to increase the drilling. Locations and completions have been falling off gradually every week, but at an exceedingly low rate. Companies are no doubt drilling as many wells as possible before bad weather and boggy trails making drilling more expensive, and almost impossible.

Installing Pumping Equipment

Several companies owning leases along the Sabine River in Gregg County are now putting in standard fronts on their wells on these leases, preparing them for pumping if pressures should go off during the bad weather, and at a time when it would be practically impossible to haul pumping equipment into this area. The Magnolia Petroleum Co. is the only company which has been standardizing all of its wells as they were completed, and at the present time is slackening on its drilling, putting down only two wells at this writing while other major companies continue at a forced rate, although in some cases drilling only where necessary.

Mid-Kansas Oil & Gas Co.'s No. 2 C. L. Graham in the Peter Tipps Survey marks the dividing line between the oil and gas producing areas in the southern Joiner area, southern Rusk County. This well is a south offset to the Sun Oil Co.'s No. 1 Alph Lee which came in three weeks ago as a small well, thereby leading to the defining line between the two areas. The Graham well was completed at a total depth of 3,646 feet flowing 10 bbls. of oil per hour from 2 feet of sand cored at 3,642-44 feet. One or two more locations to the south may prove the exact limits of the field in so far as oil is concerned.

Another west edge well of Gregg County is preparing to go on the pump. This is the Tidal Oil Co.'s No. 1 Choice in the W. P. Chisum Survey. The well has been flowing for over a year, but has been making some salt water for the last three months, necessitating the use of pumping equipment to make its daily allowable.

Another small refinery is going up in Gregg County. Name of the plant is not yet known. It is being erected near Omega and will purchase oil from wells in the north end of the field which have no pipe line connections. This will make the twenty-first refinery for East Texas.

The Wales Pipe Line Co. has changed its name to the Selaw Purchasing Co.

Small pipe line companies are springing up over night in the field to take advantage of the distress oil which may be purchased far below the posted price, and it is believed that some, if not many, of these companies will add to the difficulties in ferreting out overproduction and excess pipe line runs from the field. It is said that some of these small companies are taking connections from major pipe lines, probably offering to run more oil from the leases than the major lines will run.

The Shell Petroleum Corp. has farmed out its 80-acre L. Graves lease in the M. Irwin Survey, Upshur County to Lester and Duffield for a five-sixteenths overriding royalty. This is another edge lease.

Wildcatting Activities

Byrd and Frost of Dallas have increased their block centering in the Glassco Survey, south of Ore City in Upshur County, and are to drill a test in the near future.

T. J. Spikes of Hubbard has assembled a block of 3,400 acres in the southeastern corner of Hill County, extending south and southwest of Hubbard, and will probably drill a wildcat test.

The Columbia Oil & Gas Co. is to start a test in the east D. Holbrook Survey, 6 miles northwest of Ridgeway in the northwestern part of Hopkins Survey, on a 10,000-acre block taken some time ago by two other parties. Derrick is now standing on McCloud farm.

Arthur Kelsey is assembling a block in Hunt County, beginning on the southwest end of the J. Holt Survey and extending northeast to the Chandler and others block southwest of Campbell. A test is to be started in 60 days.

The California Royalty & Leasing Co. has taken a spread of 2,315 acres around the edge of the Alladay block 6 miles southeast of Centerville, and is also purchasing considerable royalty in this area.

F. Harris of Fort Worth is assembling nearly 3,000 acres south and east of the old Greer test southeast of the town of Emory in Raines County, and will drill a test on his block.

Two more wildcat locations have been staked in Cherokee County. Barkley Tate and others have staked location on the H. E. Neal farm in the J. M. Prosella Survey, and have erected a derrick. The Pure Oil Co. has staked location on the W. B. Nicholson farm in the R. Stewart Survey.

Clyde Creighton has erected a derrick on lease on the Holly Brothers farm in the A.B.&M. Survey, Freestone County. This is the first test to be drilled in this county for several months.

Scott and Ashford have derrick erected on the Duphrates farm in the Del Torres Survey, in the western part of Upshur County, almost due north of the town of Gladewater.

COMPLETIONS IN EAST TEXAS

Cherokee County

Mid-Kansas Oil & Gas Co.'s No. 3 H. D. Kelley, top sand 3,659 feet, initial production 96 bbls. per hour on 2-inch lead, total depth 3,664 feet.

North Gregg County

Arkansas Fuel Oil Co.'s No. 6 Adrian and McCrary, top sand 3,501 feet, initial production 38 bbls. in 15 minutes through 2-inch tubing, total depth 3,525 feet; No. 5 Burnside, top sand 3,477 feet, initial production 46 bbls. per day pinched, total depth 3,502 feet; No. 6 Burnside, top sand 3,479 feet, initial production 46 bbls. per day pinched, total depth 3,504 feet; No. 5-A McKinley, top sand 3,612 feet, initial production 26 bbls. in 15 minutes through 2-inch tubing choke, total depth 3,635 feet; No. 3-B S. G. Smith, top sand 3,535 feet, initial production 32 bbls. in 15 minutes through 2-inch tubing choke, total depth 3,559 feet. Atlantic Oil Production Co.'s No. 8-B Burnside, top sand 3,478 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,518 feet; No. 14-B Burnside, top sand 3,472 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,519 feet; No. 23 J. C. Judge, top sand 3,507 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,529 feet; No. 12 J. M. Moore, top sand 3,503 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,523 feet; No. 20 J. M. Moore, top sand 3,529 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,536 feet; No. 21 J. M. Moore, top sand 3,507 feet, initial production 32 bbls. per hour through tapered tubing, total depth 3,532 feet; No. 3 P. McGeorge, top sand

3,490 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,538 feet; No. 8 H. Pritchard, top sand 3,492 feet, initial production 32 bbls. per hour through tapered tubing, total depth 3,522 feet. Atlantic and Stanolind Oil & Gas Co.'s No. 5 Fishburn, top sand 3,487 feet, initial production 33 bbls. per hour through tapered tubing, total depth 3,522 feet. Atlantic and Sun Oil Co.'s No. 6 Anderson, top sand 3,477 feet, initial production 64 bbls. per hour through tapered tubing, total depth 3,520 feet; No. 4-C Barnswell, top sand 3,483 feet, initial production 175 bbls. per hour through 2½-inch tubing, total depth 3,524 feet; No. 21 M. Hays, top sand 3,515 feet, initial production 32 bbls. per hour through tapered tubing, total depth 3,563 feet.

Deep Rock Oil Co. and Murphy's No. 7 H. Pritchard, top sand 3,497 feet, initial production 50 bbls. in 15 minutes through 2½-inch open tubing, total depth 3,552 feet. Empire Gas & Fuel Co.'s No. 9 T. W. Lee, top sand 3,520 feet, initial production 35 bbls. in 15 minutes through 2½-inch open tubing, total depth 3,555 feet. Everetts and Phillips' No. 1 Block, top sand 3,633 feet, initial production 48 bbls. in 15 minutes through 2½-inch open tubing, total depth 3,650 feet.

Gulf Production Co.'s No. 7 Bacle, top sand 3,631 feet, initial production 70 bbls. per hour through three-quarter inch tubing choke, total depth 3,673 feet; No. 5 M. F. Barker, top sand 3,562 feet, initial production 75 bbls. per hour through three-quarter inch tubing choke, total depth 3,578 feet; No. 15 Judge, top sand 3,511 feet, initial production 72 bbls. per hour through three-quarter inch tubing choke, total depth 3,535 feet; No. 17 Judge, top sand 3,491 feet, initial production 84 bbls. per hour through three-quarter inch tubing choke, total depth 3,513 feet; No. 22 Judge, top sand 3,510 feet, initial production 88 bbls. per hour through three-quarter inch tubing choke, total depth 3,533 feet; No. 25 Judge, top sand 3,540 feet, initial production 80 bbls. per hour through three-quarter inch tubing choke, total depth 3,563 feet. Imperial Oil Co.'s No. 3 Shoults, top sand 3,676 feet, initial production 25 bbls. in 10 minutes through 2½-inch tubing choke, total depth 3,714 feet. Lacey Petroleum Co.'s No. 3 T. D. Anderson, top sand 3,630 feet, initial production 45 bbls. in one-quarter hour through 2½-inch open tubing, total depth 3,665 feet.

Magnolia Petroleum Co.'s No. 8 H. L. Foster, top sand 3,545 feet, initial production 120 bbls. per hour through 2-inch open tubing, total depth 3,576 feet; No. 4 A. J. Green, top sand 3,571 feet, initial production 128 bbls. per hour through 2-inch tubing, total depth 3,591 feet. Pitten-Goldstein and others' No. 2-A M. Bonner, top sand 3,600 feet, initial production 70 bbls. per hour through 2½-inch open tubing, total depth 3,610 feet. Red Star Oil Co.'s No. 4 Anderson, top sand 3,617 feet, initial production 40 bbls. in 18 minutes through 1-inch tubing choke, total depth 3,642 feet.

Selby Oil & Gas Co.'s No. 10-B Snavely heirs, top sand 3,559 feet, initial production 40 bbls. in one-quarter hour through 2-inch open tubing, total depth 3,575 feet. Shell Petroleum Corp.'s No. 4 S. C. Fishburn, top sand 3,485 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,550 feet; No. 13 J. Moore, top sand 3,537 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,568 feet; No. 15 J. Moore, top sand 3,532 feet, initial production 15 bbls. in one-half hour through tapered tubing, total depth 3,559 feet. E. L. Smith Oil Co.'s No. 1-B C. L. Taylor, top sand 3,467 feet, initial production 180 bbls. per hour through three-quarter inch tubing choke, total depth 3,503 feet; No. 3-B C. L. Taylor, top sand 3,524 feet, initial production 180 bbls. per hour through three-quarter inch tubing choke, total depth 3,553 feet. Stanolind Oil & Gas Co.'s No. 6 Cox & Hamon, top sand 3,455 feet, initial production 57 bbls. in one-quarter hour through 1-inch tubing, total depth 3,500 feet; No. 8 H. Keys, top sand 3,523 feet, initial production 52 bbls. in one-quarter hour through 2½-inch tubing choke, total depth 3,607 feet. Sun Oil Co.'s No. 8 J. M. Haynes, top sand 3,572 feet, initial production 40 bbls. per hour through tapered tubing, total depth 3,654 feet; No. 6-B A. Tooke, top sand 3,576 feet, initial production 24 bbls. in one-quarter hour through 2½-inch open tubing, total depth 3,647 feet. Tidal Oil Co.'s No. 13 Castleberry, top sand 3,581 feet, initial production 14 bbls. in 10 minutes through 2-inch open tubing, total depth 3,596 feet; No. 9 A. Davis, top sand 3,523 feet, initial production 14 bbls. in 10 minutes through 2-inch open tubing, total depth 3,549 feet.

Yount Lee Oil Co.'s No. 3 Custer, top sand 3,551 feet, initial production 60 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,563 feet; No. 2 Harley, top sand 3,577 feet, initial production 76 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,597 feet.

South Gregg County

Arkansas Drilling Co.'s No. 2 Adkins Heirs, top sand 3,652 feet, initial production 65 bbls. per hour through three-quarters inch tubing choke, total depth 3,661 feet. Barnsdall Oil Co.'s No. 6 John Douglas, top sand 3,635 feet initial production 80 bbls. per hour through three-quarters inch tubing choke, total depth 3,639 feet. Zeppa, Trustee's (formerly Delta Drilling Co.) No. 1 Hughey-Ross, top sand 3,530 feet, initial production 80 bbls. per hour through 2½-inch open tubing, total depth 3,580 feet. Everts Drilling Co.'s No. 2 J. H. Laird, top tubing choke, total depth 3,585 feet.

Gulf Production Co.'s No. 15 G. W. sand 3,546 feet, initial production 50 bbls. per hour through three-quarters inch Culver, top sand 3,498 feet, initial production 75 bbls. per hour through three-fourths-inch tubing choke, total depth 3,535 feet; No. 2 C. L. Still, top sand 3,480 feet, initial production 24 bbls. per hour through three-quarters inch tubing choke, total depth 3,567 feet; No. 5 R. H. Still, top sand 3,530 feet, initial production 68 bbls. per hour through three-quarters inch tubing choke, total depth 3,575 feet; No. 9 R. H. Still, top sand 3,488 feet, initial production 60 bbls. per hour through three-quarters inch tubing choke, total depth 3,528 feet. Roger Lacy's No. 2 fee, top sand 3,530 feet, initial production 135 bbls. per hour through 1-inch tubing choke, total depth 3,583 feet. Liner, Inc.'s No. 4-G Clayborn, top sand 3,694 feet, initial production 100 bbls. in one-half hour through open 2½-inch tubing, total depth 3,699 feet.

Magnolia Petroleum Co.'s No. 2 M. Andrews, top sand 3,591 feet, initial production 132 bbls. per hour through 1-inch tubing choke, total depth 3,601 feet; No. 2 R. B. Wells, top sand 3,635 feet, initial production 112 bbls. per hour through 1-inch tubing choke, total depth 3,641 feet. Lee Masters' No. 1 Mrs. F. Thompson, top sand 3,515 feet, initial production 46 bbls. per day by heads, total depth 3,565 feet. E. J. Raddatz' No. 1 M. T. Cole, top sand 3,528 feet, initial production 35 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,546 feet.

Shell Petroleum Corp.'s No. 6 Nellie Jobe, top sand 3,530 feet, initial production 15 bbls. in one-half hour through open tapered tubing, total depth 3,587 feet. Sinclair Prairie Oil Co.'s No. 13 S. G. Andrews, top sand 3,400 feet, initial production 45 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,451 feet; No. 19-B A. A. King, top sand junked and abandoned, prepare to skid over; No. 9 A. A. Lockhart, top sand 3,648 feet, initial production 25 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,658 feet. Solar Exploration Co.'s No. 2 J. S. and F. Elder, top sand 3,523 feet, initial production 6 bbls. per hour through open tapered tubing, total depth 3,550 feet. Sam K. Vierson's No. 4 Muckelroy, top sand 3,524 feet, initial production 42 bbls. in one-quarter hour through open 2½-inch tubing, total depth 3,556 feet.

North Rusk County

Gulf Production Co.'s No. 10-A C. Christian, top sand 3,619 feet, initial production 80 bbls. per hour through three-quarters inch tubing choke, total depth 3,662 feet; No. 5-B C. E. Christian, top sand 3,640 feet, initial production 55 bbls. per hour through three-quarters inch tubing choke, total depth 3,646 feet; No. 8 Florence, top sand 3,655 feet, initial production 66 bbls. per hour through three-quarters inch tubing choke, total depth 3,661 feet. Humble Oil & Refining Co.'s No. 3 W. D. Peterson, top sand 3,591 feet, initial production 65 bbls. per hour through 1-inch tubing choke, total depth 3,676 feet. R. C. Lipscomb's No. 1 Solon Jackson, top sand 3,706 feet, initial production 45 bbls. in one-half hour through tubing, total depth 3,708 feet. Shell Petroleum Corp.'s No. 7 J. H. Spivey, top sand 3,680 feet, initial production 16 bbls. per hour through open tapered tubing, total depth 3,755 feet. Stanolind Oil & Gas Co.'s No. 4 C. O. Christian, top sand 3,640 feet, initial production 46 bbls. in 36 minutes through open 2½-inch tubing, total depth 3,645 feet.

South Rusk County

DeArman Brothers' No. 2 L. P. Thrash, top sand 2,724 feet, initial production 23 bbls. in 10 minutes through open 2-inch tubing, total depth 3,758 feet. Falcon Oil Co.'s No. 4 Perkins, top sand 3,608 feet, initial production 46 bbls. in 20 minutes through open 2½-inch tubing, total depth 3,640 feet. Golding & Murchinson's No. 2 W. P. Keeling, top sand 3,655 feet, initial production 46 bbls. in 45 minutes through 1-inch tubing choke, total depth 3,740 feet.

Gulf Production Co.'s No. 3 C. O. Crim, top sand 3,773 feet, initial production 62 bbls. per hour through three-quarters inch tubing choke, total depth 3,783 feet; No. 4 C. O. Crim, top sand 3,748 feet, initial production 82 bbls. per hour through three-quarters inch tubing choke, total depth 3,758 feet; No. 3 A. H. Rayford, top sand 3,722 feet, initial production 60 bbls. per hour through three-quarters inch tubing choke, total depth 3,725 feet.

Humble Oil & Refining Co.'s No. 2 J. E. Arnold, top sand 3,644 feet, initial production 50 bbls. per hour through three-quarters inch tubing choke, total depth 3,730 feet; No. 7 J. H. Arnold, top sand 3,760 feet, initial production 40 bbls. in one-half hour through three-quarters inch tubing choke, total depth 3,810 feet; No. 5-B Ida Holt, top sand 3,730 feet, initial production 42 bbls. per hour through three-quarters inch tubing choke, total depth 3,792 feet; No. 14 H. L. Price, top sand 3,684 feet, initial production 43 bbls. in one-half hour through three-quarters inch tubing choke, total depth 3,782 feet; No. 5 C. W. Wilson, top sand 3,568 feet, initial production 25 bbls. in one-half hour through three-quarters inch tubing choke, total depth 3,678 feet. Hunt Production Co.'s No. 2 C. N. Dickerson, top sand 3,600 feet, initial production 30 bbls. per hour through open 2-inch tubing, total depth 3,690 feet. International Oil Co.'s No. 3 Pinkston, top sand 3,635 feet, initial production 60 bbls. per hour through 1½-inch choke on 2-inch tubing, total depth 3,685 feet. Johnston Brothers' No. 4 T. W. Mullins, top sand 3,774 feet, initial production 32 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,794 feet. C. H. Lyons' No. 1 Deason, top sand 3,695 feet, initial production 35 bbls. per hour through open 2-inch tubing, total depth 3,793 feet. Malarne and Bullock's No. 2 E. B. Alford, top sand 3,543 feet, initial production 45 bbls. per hour through open 2½-inch tubing, total depth 3,614 feet.

Mid-Kansas Oil & Gas Co.'s No. 6 H. C. and G. W. Burton, top sand 3,639 feet, initial production 98 bbls. per hour on 2-inch lead, total depth 3,661 feet; No. 2 Clay heirs, top sand 3,644 feet, initial production 40 bbls. per hour on 2-inch lead, total depth 3,719 feet; No. 16 M. M. Cross, top sand 3,595 feet, initial production 84 bbls. per hour through 2-inch lead, total depth 3,614 feet; No. 2

East Central Texas Wildcats

Week Ending August 8

ANDERSON COUNTY

Company, well, farm name, section and block—	Remarks:
Frazier et al's No. 1 H. L. Hudson, 200 ft. from S line and 200 ft. from W line of 196-ac. tract, M. Rionda Sur.	Derrick.
Roeser and Pendleton's No. 1 M. A. Davy, 660 ft. from N line and center of E and W lines of tract and survey, P. G. Adams Sur.	Derrick.
C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in 8½ of 129-ac. tract, M. Main Sur.	T.D. 1,538 ft

BOWIE COUNTY

Roy Anderson's No. 1 Dykes, 2 miles W of Texarkana, M. Dykes Sur.	Drlg. 1,250 ft.
Burnham-Robertson and Greer's No. 1 F. O. Weiss, 350 ft. from N line and 200 ft. from W line of B. H. Williams 50-ac. tract, Jessie Dean Sur.	S.D. 3,727 ft.

CHEROKEE COUNTY

Barkley Tate et al's No. 1 H. E. Neal, 330 ft. from N and W lines of tract, J. M. Prosella Sur.	Derrick.
Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur.	S.D. 1,000 ft.
Davis et al's No. 1 Annie Kelley, 330 ft. from N line and center of E and W lines of 21.4-ac. lease, M. D. L. S. Coy Sur.	Caught fire; T.D. 3,681 ft.
Patton-Oliver and Murray's No. 1-A Eddie Toole, skidded derrick 20 ft. W of No. 1 Toole, M.D.L.S. Coy Sur.	Derrick.
Pure Oil Co.'s No. 1 W. B. Nicholson, 300 ft. from S and E lines of 72-ac. tract, R. Stewart Sur.	Location.
Rayburn and Glassco's No. 1 Annie Kelley 1,714 ft. S and 2,210 ft. W of NW cor. of Pilot Oil Co.'s Kelley 10-ac. lease, M. De Los Santos Coy Sur.	Drlg. 2,900 ft.
Merry Bros. and Perini's No. 2 Annie Kelley, 8 offset to Pilot Oil Co.'s No. 1 Kelley, M. D. L. S. Coy Sur.	Drlg. 2,400 ft.
Mid-Kansas Oil & Gas Co.'s No. 20 M. M. Cross, 330 ft. from N and W lines of survey, E. B. Foulkes Sur.	Drlg. 2,775 ft.
Mid-Kansas Oil & Gas Co.'s No. 4 H. D. Kelly, 330 ft. from S line and 1,875 ft. from E line of lease, M. D. L. S. Coy Sur.	Derrick.
William A. Stone's No. 1 J. T. Perkins, 200 ft. from NW cor. of lease, Thomas Stanford Sur., 3 miles S of Ponta	S.D. 2,250 ft.; (corrected).
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur.	S.D. 3,170 ft.

(Continued on Next Page)

C. L. Graham, top sand 3,642 feet, initial production 10 bbls. per hour through 2-inch lead, total depth 3,644 feet; No. 8 W. T. Grissom, top sand 3,592 feet, initial production 76 bbls. per hour on 2-inch lead, total depth 3,614 feet; No. 21 Grissom, top sand 3,670 feet, initial production 114 bbls. per hour on 2-inch lead, total depth 3,675 feet; No. 5 M. A. Price, top sand 3,580 feet, initial production 60 bbls. per hour on 2-inch lead, total depth 3,643 feet; No. 8 M. A. Price, top sand 3,583 feet, initial production 44 bbls. per hour on 2-inch lead. Mills Bennett Corp.'s No. 7 L. J. Pinkston, top sand 3,562 feet, initial production 50 bbls. per hour through open 2-inch tubing, total depth 3,660 feet.

Spansco Oil Co.'s No. 5 John Bell, top sand 3,760 feet, initial production 60 bbls. in 30 minutes through 2½-inch open tubing, total depth 3,792 feet. Stanolind and Pure Oil Co.'s No. 11 R. A. Moore, top sand 3,580 feet, initial production 46 bbls. in 24 minutes through open 2½-inch tubing, total depth 3,651 feet; No. 8 W. H. Siler, top sand 3,629 feet, initial production 46 bbls. in 38 minutes through open 2½-inch tubing, total depth 3,663 feet; No. 16 W. H. Siler, top sand 3,594 feet, initial production 46 bbls. in 29 minutes through open 2½-inch tubing, total depth 3,634 feet; No. 21 W. H. Siler, top sand 3,606 feet, initial production 46 bbls. in 29 minutes through open 2½-inch tubing, total depth 3,634 feet. Sun Oil Co.'s No. 1 Jeff Hendon, top sand 3,565 feet, initial production 45 bbls. per hour through open 2-inch tubing, total depth 3,637 feet. Tidal Oil Co.'s No. 3 G. Pool, top sand 3,644 feet, initial production 25 bbls. in 15 minutes through open 2-inch tubing, total depth 3,732 feet.

Smith County

Gulf Production Co.'s No. 6 S. B. Stone, top sand 3,794 feet, initial production 82 bbls. per hour through three-quarters inch tubing choke, total depth 3,802 feet. W. B. Hinton's No. 5 Mayfield, top sand 3,828 feet, initial production 82 bbls. per hour through three-quarters inch tubing choke, total depth 3,833 feet. Mid-Kansas Oil & Gas Co.'s No. 4 J. H. Sharp, top sand 3,636 feet, initial production 128 bbls. per hour on 2-inch lead, total depth 3,639 feet. Robert S. Monroe's No. 2 Harper Robinson, top sand 3,814 feet, initial production 72 bbls. in 30 minutes through open 2-inch tubing, total depth 3,816 feet. W. L. Session and others' No. 3 Sebe Stone, top sand 3,706 feet, initial production 15 bbls. in 10 minutes through open 2-inch tubing, total depth 3,709 feet. F. L. Shackelford's No. 1 Lula Jackson, temporarily abandoned location.

Sinclair Prairie Oil Co.'s No. 18-A Jarvis, top sand 3,704 feet, initial production 80 bbls. per hour through open 2-inch tubing, total depth 3,712 feet; No. 6-B Jarvis, top sand 3,718 feet, initial production 350 bbls. in 2½ hours through open tubing, total depth 3,735 feet; No. 6 Bunch Wilson, top sand 3,741 feet, initial production 45 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,745 feet; No. 5 Dora Wright, top sand 3,736 feet, initial production 45 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,743 feet. Zion Oil Co.'s No. 2 Sartain, top sand 3,786 feet, initial production 46 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,789 feet.

Upshur County

Cal-Pet Corp.'s No. 5 Stinchcomb, initial production 35 bbls. per hour through open tubing, total depth 3,753 feet. Cranfill & Reynolds' No. 3 Williams, top sand 3,636 feet, initial production 21 bbls. in 15 minutes through 1-inch tubing, total depth 3,642 feet. Dean and Atkins' No. 3 C. M. Victory, top sand 3,619 feet, initial production 46 bbls. in 24 hours by heads, total depth 3,638 feet. Perrin and Fell's No. 4 C. C. Landers, top sand 3,707 feet, initial production 25 bbls. in 15 minutes through tubing, total depth 3,731 feet. J. D. Reynolds' No. 1 L. B. Miller, top sand 3,760 feet, initial production 46 bbls. in 24 hours swabbing, total depth 3,797 feet. Rio Oil Co.'s No. 3 L. Graves, top sand 3,634 feet, initial production 100 bbls. per hour through 2½-inch open tubing, total depth 3,646 feet. Salome-Cooper Drilling Co.'s No. 6 Eva O'Byrne, top sand 3,679 feet, initial production 25 bbls. per hour through three-quarters inch tubing choke, total depth 3,683 feet. Simms and Stanolind Oil & Gas Co.'s No. 15-B J. J. Flewellen, top sand 3,724 feet, initial production 90 bbls. per hour through 2-inch open tubing, total depth 3,732 feet. Twin Oil Co.'s No. 7 M. Bonner, top sand 3,630 feet, initial production 90 bbls. per hour through 2-inch open tubing, total depth 3,637 feet.

Van Zandt County

Pure Oil Co.'s No. 3 T. J. Wallace, initial production 100 bbls. first 24 hours after choked for proration, total depth 2,945 feet; No. 3 Mrs. C. White, initial production 50 bbls. first 24-hour gauge after choked for proration, total depth 2,963 feet.

Gasoline Market in East Unsettled by Competition

(Continued from Page 23)

products was again noted locally during the week, with small-lot shipments still the order of the day, and little indication of any immediate improvement in general export demand.

The following table shows exports of principal refined petroleum products from the port of New York for the past three weeks (all figures in gallons unless otherwise noted):

	Week ended		
	July 30	July 23	July 16
Gasoline	60,000	95,000	755,000
Naphtha	15,000	295,000	2,450,000
Kerosene	23,000	28,000	28,000
Fuel and gas oil	28,000	204,000	24,000
Lubricating oil	585,000	560,000	797,000
Petroleum, ref'd.	355,000	152,000	230,000
	Pounds		
Petroleum		8,900	
Paraffin wax	1,340,000	1,015,000	1,025,000
Refined	115,000	168,000	
Scale	75,000	64,000	53,000
Lub. grease	620,000	585,000	355,000

The tariff situation is expected to be reflected in curtailed export movement of refined products from eastern refineries during the balance of the year. Large intercompany shipments of gasoline and other products, formerly made from plants in this area and at the Gulf, are expected to be diverted, in part at least, to refineries operating in the Caribbean area, these shipments replacing former movement of refined products from Caribbean refineries to Atlantic and Gulf ports in the United States.

Imports

The effects of the oil import tariff were again fully evident in statistics covering imports for the week ended July 30, which totaled but 348,000 bbls., a daily average of 49,714 bbls., compared with 716,000 bbls., a daily average of 102,286 bbls. for the previous week, and a daily average of 77,750 bbls. for the four weeks ended June 30. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	282,000
Others	66,000
Total	348,000
Daily average	49,714

There were no imports at the Gulf during the week.

The week's imports consisted of 211,000 bbls. of crude oil, and 137,000 bbls. of fuel oil.

California Oil Receipts

Notwithstanding reports of a pending heavy intercoastal movement of California gasoline, no substantial movement has been reported thus far. There were no receipts during the week ended July 30, and the daily average for the four weeks ended on that date was but 43,821 bbls.

Only one cargo of California gasoline was reported afloat for East Coast during the week, 116,000 bbls. of gasoline on the Mercury Sun (Sun Oil Co. tanker) for Philadelphia.

Shell is expected materially to increase its takings of California gasoline, to replace imported gasoline formerly received from Curacao, but apparently Shell Eastern still has sufficient stocks remaining from its recent imports and its current shipments from the Gulf.

Potter County, Pennsylvania Has 23,000,000-foot Gasser

CORNING, N. Y., Aug. 6.—Schrack and others' No. 1 Tassel, in Hebron Township, Potter County, Pennsylvania, gas field, is listed with a flow of 23,000,000 feet of gas gauged just prior to capping. The rock pressure was reported at 2,180 pounds indicating probable long life.

The well blew in through the cement with a 10,000,000-foot flow. For 10 days the gas blew wild and the gasser was subdued only after two boilers and two pumps were used to kill the flow.

It was reported Schrack would start drilling immediately on another location in the Potter Field. The Tassel is the largest well in the new field.

Potter Development Co.'s A. Matteson well, Hebron Township, Potter County, Pennsylvania, drilling at about 4,700 feet will probably be the next well. Allegany's Emporium Lumber Co. tract in the East Fork district was cementing caves at 5,775 feet.

Other Potter operations are the Smith-Cole farm test, on which J. Morrow is rigging up for Morrow, Metzner and McGraw; No. 1 W. L. Gale, of Hammondsport Natural Gas, on which Atwater is rigging up; and the J. B. Champlin, shut down at 3,150 feet for new equipment and owned by J. B. Reed. These operations are in Allegany Township. Hebron has No. 2 Booth, of R. Hungiville, drilling at about 2,300 feet; No. 1 E. N. Clair, of Rodgers and others, drilling at 1,200 feet, and Sloan and Searle's No. 1 Sturdevant, among its prospective producers.

In Tioga County, Lycoming's No. 1 Finch, Farmington, drilling at about 3,500 feet and No. 3 Farr, drilling at about 2,000 feet; Mutual Natural's No. 2 Murray, Farmington, shut down at 3,748 feet, and Elkland Oil & Gas Co.'s No. 1 R. Van Dusen, Farmington, rigging up by Fillmore Co. are the only active operations.

W. W. Keefer, Jr.'s No. 1 Kennedy, in Ulster Township, Bradford County, was completed as a dry hole at 5,520 feet.

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ending August 6 follow:

	Bbls.
WYOMING	
Salt Creek	24,540
Big Muddy	1,660
Badger Basin	50
Byron-Garland	1,100
Dallas Derby	440
Dutton Creek	80
Elk Basin	550
Ferris	50
Frannie	190
Grass Creek	3,380
Greybull	0
Hamilton Dome	860
Hudson	440
La Barge	950
Lance Creek	90
Lost Soldier	2,190
Mule Creek	0
Midway	120
Notches	0
Oregon Basin	100
Osage	760
Pilot Butte	30
Rex Lake	0
Rock River	1,170
South Casper	0
Poison Spider	80
Teapot	20
Warm Springs	20
Total Wyoming	38,870
MONTANA	
Buckley-Border	560
Cat Creek	860
Dry Creek	800
Kevin-Sunburst	4,150
Lake Basin	40
Pondera	950
Total Montana	7,360
COLORADO	
Florence	370
Fort Collins and Wellington	740
Iles Dome	550
Moffat	640
Orchard	240
Rangely	90
Tow Creek	270
Total Colorado	2,900
NEW MEXICO	
Artesia	495
Caprock	902
Hogback	460
Jal	885
Rattlesnake	700
Table Mesa	78
Eunice	536
Hobbs	28,219
Lea	1,941
Texas-Pacific	55
Total New Mexico	34,271
Total Rocky Mountain area	83,401
Total previous week	84,250
Difference	749

East Central Texas Wildcats

(Continued from Preceding Page)

DELTA COUNTY

Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur. ..... **S.D. 3,733 ft.**

Joiner et al's No. 1 Blackwell, 800 ft. S and 150 ft. from E lines of 275-ac. tract, Dunnetelle Sur. ..... **S.D. 3,030 ft.**

ELLIS COUNTY

Armstrong's No. 1 Milton Cook, SE cor. of 50-ac. tract, S. Frederick Sur. ..... **S.D. 215 ft.**

Armstrong Bros.' No. 1 Reeves ..... **Waiting on cmt. to set 100 ft.**

Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft from E and 150 ft. from S of Orland, Orlo Wheeler Sur. ..... **S.D. 1,425 ft.**

Clark Brooks' No. 1 Anderson, SE cor. of 2,900-ac. tract, 10 miles SW of Wachatchie, E. C. Branch Sur. ..... **Spudded and shut down.**

Worthen Petroleum Co.'s No. 2 Cerf, Mulligan Farm Sur., 50 ft. W of No. 1 ..... **Prepare to abandon; T.D. 2,395 ft.**

FRANKLIN COUNTY

Tom Harper's No. 1 fee, 150 ft. from N line and 200 ft. from E line of 116-ac. tr., W. M. Dawson Sur. ... **T.D. 3,290 ft. (corrected).**

FREESTONE COUNTY

Clyde Creighton's No. 1 Holley Bros., 354 ft. from W line and center of N and S lines of lease, A.B.M. Sur. ..... Derrick.

GREGG COUNTY

Arkansas Fuel Oil Co.'s No. 1 J. D. Davis, 330 ft. from N line and 225 ft. from W line of lease, D. Sanches Sur. ..... Derrick.

Arkansas Fuel Oil Co.'s No. 1 E. Killingsworth, 330 ft. from N and W lines of lease, William Robinson Sur. ..... Location.

Atlantic and Wadley's No. 1 Hays, 330 ft. from S line and 600 ft. from W line of lease, W. C. Alvice Sur. ..... Derrick.

Atlantic Oil Producing Co.'s No. 1 P. McGeorge, 330 ft. from S line and 330 ft. from W line of lease, P. McAnally Sur. ..... Rig up.

D. M. Buffington's No. 1 Dansley, 500 ft. W and 200 ft. N of NE cor. of Searight Blackman 100-ac. lease, W. P. Chisum Sur. ..... S.D. 1,700 ft.

Burnham and Johnson's No. 1 H. L. Dansby, 650 ft. from E line of tract and 260 ft. from S line of lease, W. P. Chisum Sur. ..... Drlg. 3,320 ft.

J. E. Davant's No. 1 Rowland, 150 ft. W and 450 ft. S of SW cor. of Magnolia's Roland lease, M. V. Winkle Sur. ..... Drlg. 2,850 ft.

Dodd and Markey's No. 1 J. F. Holt, 615 ft. E and 707 ft. N of SW cor. of 200-ac. tract, H. Edwards Sur. ... S.D. 2,025 ft.

Faith Oil Co.'s No. 2 Fuller, 330 ft. from N and W lines of lease, M. Alexander Sur. ..... Waiting on cmt. to set; T.D. 3,688 ft.

Feazell et al's No. 1 McKinley, 430 ft. from S line and 221 ft. from W line of lease, W. M. Robinson Sur. ... Drlg. 3,130 ft.

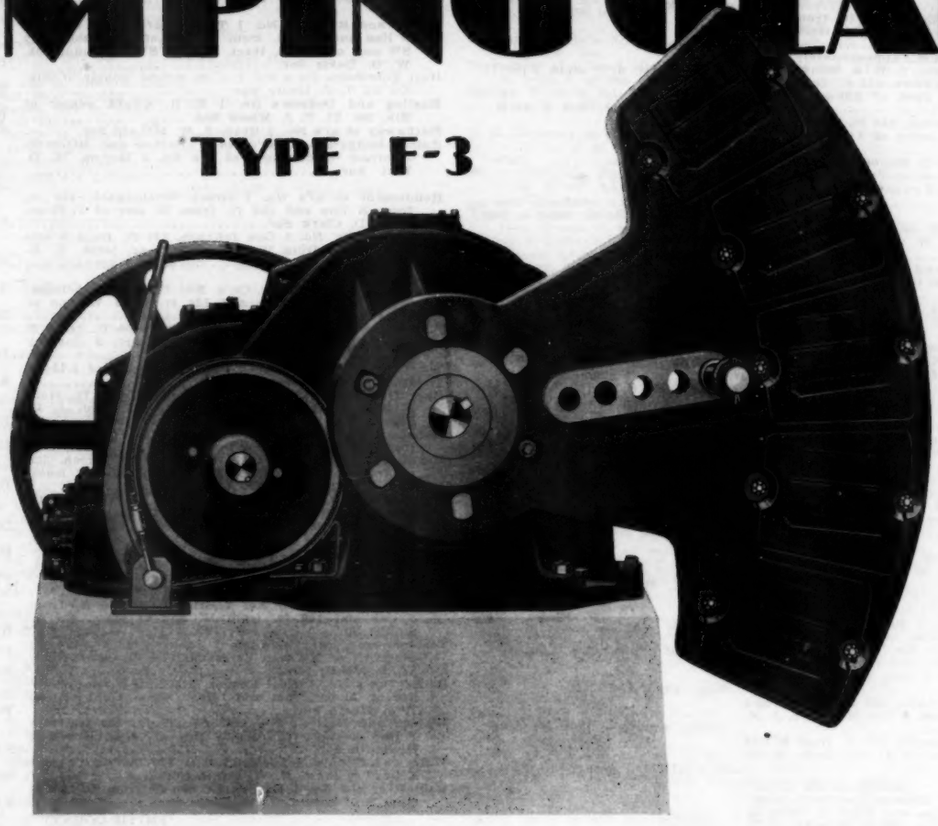
F. E. Flannery's No. 1 M. T. Cole, 330 ft. from W line and center of N and S lines of 10-ac. lease, E. M. Bramlett Sur. ..... Rig up and S.D.

IDEAL

"Reg. U. S. Pat. Off."

SINGLE REDUCTION PUMPING GEARS

TYPE F-3



A sturdy, compact, single reduction, geared unit with an additional stage of V-belts for driving a standard rig walking beam by either electric motor or gas engine.

Provided with sprocket for driving a production hoist, which may be operated independently of the crankshaft by means of a special type clutch within the gear unit.

Descriptive literature free upon request.

THE NATIONAL SUPPLY COMPANIES

Galves Oil Co.'s No. 1 E. Strong, 280 ft. from N line and 286 ft. from E line of 50-ac. lease, J. Beaty Sur. ..... Waiting on cmt. to set 3,700 ft.
Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur. ..... Derrick.
Guinn Petroleum Co.'s No. 1 J. S. and F. Elder, 200 ft. NE of Solar's No. 1 Elder, and 450 ft. SE of Martin's No. 1 Elder, M. V. Winkle Sur. ..... Rig up.
Gulf Production Co.'s No. 1 Longley, 521 ft. from N line of lease and center of E and W lines, D. Dainwood Sur. ..... Rig up.
Hankamer and Cockran's No. 1 C. L. Taylor, 235 ft. from N line and 97 ft. from E line of lease, W. H. Castleberry Sur. ..... Waiting on cmt. to set 3,525 ft.
Humble Oil & Refining Co.'s No. 1 J. R. Smith, 330 ft. from W line and 1,070 ft. from N line of lease, D. Sanches Sur. ..... T.D. 3,698 ft.
Humble Oil & Refining Co.'s No. 1 W. C. Mackey, 348 ft. from S line and 330 ft. from W line of 198.5-ac. lease, H. F. Rogers Sur. ..... Drlg. 3,579 ft.
Hurley, trustee's No. 1 M. B. Hughey, center of Blk. No. 170, M. V. Winkle Sur. ..... Drlg. 1,150 ft.
S. J. Jordan's No. 1 R. L. Walker, 660 ft. W of SE cor. of lease and 155 ft. from S line and 155 ft. from river, E. A. Lambert Sur. ..... Rig up.
Magnolia Petroleum Co.'s No. 1 M. Andrews, 530 ft. from N line and 368 ft. from E line of lease, J. Blair Sur. ..... Location.
Joe Manzell's No. 1 Victory, center of Blk. No. 13, H. R. Hokit Sur. ..... Drlg. 1,100 ft.
Martin Wood Oil Co.'s No. 1 Nanny E. Walker, 94 ft. from N line and 85 ft. from W line of .84-ac. lease, M. Dillard Sur. ..... Top sand 3,582 ft.; T.D. 3,586 ft.
McBride et al's No. 1 Tubbs, 330 ft. from N line and center of E and W lines of 6-ac. lease, D. Sanches Sur. ..... Derrick.
J. W. McCullough's No. 1 Elder, 275 ft. from S line and 195 ft. from W line of 11.64-ac. tract, M. V. Winkle Sur. ..... Rig up.
Munn et al's No. 1 I.&G.N.R.R., approximately 275 ft. SW along railroad from No. 2, M. V. Winkle Sur. ..... Fishing for drill stem 3,400 ft.
John Murphy's No. 1 W. P. Crews, 426 ft. from E line and center of N and S lines of 2.35-ac. lease, I. Beaty Sur. ..... Running tubing; T.D. 3,739 ft.
J. B. Patty et al's No. 1 Farrell, 330 ft. S and 175 ft. W of NE cor. of E 50 acres of 148-ac. tract, D. Sanches Sur. ..... Location.
J. D. Patty et al's No. 1 J. C. McCormick, 207 ft. SE at right angles to Gladewater-Tyler road and 540 ft. SW of Abernathy and Kirkpatrick's No. 1 Gregston, M. Dillard Sur. ..... T.D. 3,617 ft.; swabbed, flowing little oil 2,200 ft.; fluid in hole.
E. A. Payne et al's No. 1 R. M. Woods, 20 ft. from S line and 31 ft. from W line of 3.13-ac. lease, H. R. Holit Sur. ..... Derrick.
J. J. Roberts' No. 1 H. S. and F. Elder, 90 ft. from SW line and 90 ft. from E line of 1-ac. lease, M. V. Winkle Sur. ..... Rig up.
Russell Petroleum Co.'s No. 1 M. T. Cole, 330 ft. from S and E lines of survey, J. A. Duncan Sur. ..... Derrick.
J. M. Simmons' No. 2 Bacle, 180 ft. from N line and 85 ft. from E line of lease, G. W. Hooper Sur. ..... Drlg. 3,960 ft.
Snowden and McSweeney's No. 1 M. Bonner, 930 ft. from E line and center of N and S lines of 100-ac. lease, J. R. McRae Sur. ..... Drlg. 2,660 ft.
South Gulf Production Co.'s No. 1 Cemetery, 225 ft. NW of Barnsdall's No. 1 McGrede, on one-half acre lease, D. Sanches Sur. ..... Derrick.
Stoddard et al's No. 1 George Anderson, S offset to Stroube and Stroube's No. 2-B Anderson, C. H. Alexander Sur. ..... Derrick.
Sun Oil Co.'s No. 1 T. J. Pressley, 330 ft. from N and W lines of lease, M. Alexander Sur. ..... Location.
Swain and Holcomb's No. 1 R. M. Wood, 1,590 ft. from N and 375 ft. E of SW cor. of survey, H. R. Hokit Sur. ..... Waiting on cmt. to set; T.D. 3,632 ft.
Tidal Oil Co.'s No. 1 J. S. and F. Elder, 202 ft. from S line and 150 ft. from W line of lease, M. V. Winkle Sur. ..... Set csg.; top sand 3,532 ft.
W. C. Turnbow, trustee's No. 1 J. N. Dixon, 330 ft. from E line of lease and 477 ft. N of Alexander and Rassmussan's No. 1 Dixon, I. Beaty Sur. ..... Derrick.
W. C. Turnbow's No. 1 Knowles, W offset to Everts' No. 2 Barton, M. V. Winkle Sur. ..... Running tubing; T.D. 3,585 ft.
Douglas Williams' No. 1 Taylor, 235 ft. from N line of tract and 291 ft. from E line of tract, W. H. Castleberry Sur. ..... Drlg. 3,526 ft.
Winona Oil Co.'s No. 1 Sumi-Wells, 330 ft. from S and E lines of tract, 550 ft. from S line of survey, J. M. Morris Sur. ..... Coring 3,725 ft.
Wyche Bros.' No. 1 Charles Arnold, 330 ft. from E line and cen. of N and S lines of 34-acre lease, Peter Holmes Sur. ..... T.D. 3,712 ft.; prepare to deepen.

HENDERSON COUNTY

B. L. Green et al's No. 1 M. H. Gussett, (old well drilled deeper), 150 ft. from N line and 1,000 ft. from W line of 105.5-ac. tract, 3 miles SW of Mabank, L. D. Stover Sur. ..... S.D. 2,930 ft.
H. H. Meyers' No. 1 M. E. Olson, 2 miles S of Brownsboro tract in NW cor. of survey, George Wilson Sur. ..... S.D. 250 ft.

HILL COUNTY

Sherman-Houseman's No. 1 J. F. Griffith, in Samuel Waddell Sur. ..... Fishing 3,356 ft.
T. J. Spikes' No. 1 M. H. Davis, 150 ft. from S and E lines of 55-ac. tract, H. R. Alexander Sur. ..... Location.

HOPKINS COUNTY

Columbia Oil & Gas Co.'s No. 1 McCloud, 150 ft. from S line and 200 ft. from E line of lease, Holbrook Sur. ..... Derrick.
Roark et al's No. 1 Taylor, 320 ft. from N and W lines of 80-acr. tract in the John Polk Sur. ..... S.D. 540 ft.

HUNT COUNTY

Chandler et al's No. 1 Mrs. A. Walker, 200 ft. from S line and 500 ft. from W line of most southerly SW cor. of tract and survey, J. P. Bowerman Sur. ..... Drlg. 1,300 ft.

KAUFMAN COUNTY

Standy Darnell et al's No. 1 Sally Pannill ..... S.D. 2,250 ft.

LAMAR COUNTY

G. W. Davy et al's No. 1 McGustion, 450 ft. from S line, 450 ft. from W line of farm and survey, Galet Wood Sur. ..... Temp. abnd. 3,605 ft.
Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ..... S.D. 2,446 ft.
Doyle and Jondeau's No. 1 Horn, 226 ft. from S line and 608 ft. from E line of lease, R. P. Mayor Sur. ..... S.D. 3,030 ft.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen Sur. ..... Derrick.

MORRIS COUNTY

Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 150 ft. from E line of 65.5-ac. tract, J. D. Nelson Sur. ..... S.D. 2,554 ft.

NACOGDOCHES COUNTY

Adams et al's No. 1 Fuller Brothers, located in a 289-ac. tract, Jose Flores Sur. ..... Location.

RAINS COUNTY

C. H. Bayliss' No. 1 Ownby, 150 ft. N and 1,100 ft. from E of most easterly SE cor. of survey, Alexander Sur. ..... S.D. 4,750 ft.

RED RIVER COUNTY

Hoffman and Henson's No. 1 H. H. Lennox, 2,790 ft. W and 990 ft. S of most easterly NE cor. of survey, J. E. Edmondson Sur. ..... S.D. 60 ft.
Concord Oil Co.'s No. 1 J. R. Dellahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ..... Cleaning out 2,545 ft.
L. G. Priest's No. 1 W. C. Ware, 3¼ miles SE of English, 987 ft. from most southerly S line and 150 ft. from most easterly E line of 103.2-ac. tract, James Burkham Sur. ..... Drlg. 2,200 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tract in W. M. Bird Sur. ..... Set 10-in. csg. 130 ft.

RUSK COUNTY

Arrow Drilling Co.'s No. 1 Church Lot, center of M. E. Church Lot of London F. Cordova Sur. ..... Drlg. 3,005 ft.
Brooks Petroleum Co.'s No. 1 Mayfield, Daniel Clark Sur. ..... Top sand 3,622 ft.; waiting on standard rig; would not flow, T.D. 3,702 ft.
T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ..... S.D. 3,280 ft.
E. L. Chapman's No. 2 W. P. Moore, 330 ft. from S line and center of E and W lines, M. J. Pru Sur. ..... Bldg. derrick.
A. B. Edwards et al's No. 1 E. L. Pinkston, center of .83-ac. tract, M. J. Pru Sur. ..... Rig up.
J. Guinn's No. 1 Neal Cooper, center of Blk. No. 36, T. J. Moore Sur. ..... Waiting on standard rig; T.D. 3,660 ft.
Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ..... Derrick.
Hart Petroleum Co.'s No. 2 J. R. Alford, center of Blk. No. 32, T. J. Moore Sur. ..... Derrick.
Hasting and Dodson's No. 1 E. B. Alford, center of Blk. No. 27, T. J. Moore Sur. ..... Derrick.
Hathaway et al's No. 1 Gray, J. M. McLain Sur. ..... S.D. 3,519 ft.
Heiden-Rodgerson et al's No. 1 Barton and Birdwell, N offset to Reisinger et al's No. 1 Barton, W. G. Tutt Sur. ..... Top sand 3,781 ft.; swabbed; will not flow; S.D. 3,782 ft.
Hendershot et al's No. 1 Green Washington, 330 ft. from N line and 350 ft. from W line of 11.75-ac. tract, D. Clark Sur. ..... S.D. 2,400 ft.
H. H. Howells' No. 1 Gus Johnson, 330 ft. from S line and 330 ft. from W line of 31.84-ac. lease H. B. Dance Sur. ..... Waiting on cmt. to set; T.D. 3,835 ft.
Humble Oil & Refining Co.'s No. 1 Oscar Robertson, 350 ft. from N line and 134 ft. from W line of 50-ac. lease, J. D. Clarke Sur. ..... Derrick.
T. A. Johnson's No. 1 H. B. Leverett, 200 ft. from N line and 222 ft. from W line of tract, J. Lindley Sur. ..... Drlg. 3,700 ft.
W. C. Know's No. 1 W. D. Peterson, center of 3.75-ac. tract, Jacob Lewis Sur. ..... S.D. 2,200 ft.; rig moved off
Marr Drilling Co.'s No. 1 John Retting, 330 ft. from N line and 1,650 ft. from E line of tract, J. H. Sparks Sur. ..... Drlg. 1,800 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Peter Tipps, 330 ft. from N and W lines of lease, Peter Tipps Sur. ..... Location.
Mid-Kansas Oil & Gas Co.'s No. 3 T. O. Warren, 330 ft. from S line and 583 ft. from E line of lease, J. B. De Cadena Sur. ..... Drlg. 3,020 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 M. A. Price, 210 ft. from N line of road and 330 ft. from W line of lease, J. B. De Cadena Sur. ..... Derrick.
Pierce and Moore's No. 1 Terrell, E offset to Sun's No. 2 Barker, E. G. Sevier Sur. ..... Rig up.
J. C. Sandfer's No. 1 Irwin, center of 3.5-ac. tract, J. Lindley Sur. ..... Fishing 3,120 ft.
Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ..... S.D. 3,430 ft.
Snider and Spradner's No. 1 Brightwell, 650 ft. from S line and 150 ft. from W line of lease, R. W. Smith Sur. ..... Rig up.
Torrance and DePrang's No. 1 Johnson, 18 ft. W and 362 ft. N of NW cor. of Stanolind's Christian tract, W. R. Cooke Sur. ..... Rig up.
R. H. Vice's No. 1 Neal Cooper, 315 ft. SW along NW line of Cooper tract and 141 ft. SE at right angles, T. J. Moore Sur. ..... Waiting on standard rig 3,797 ft.
Watson and Butler's No. 1 G. W. Tipps, 330 ft. from S line and 600 ft. from W line of 18-ac. lease, H. M. Smith Sur. ..... S.D. 250 ft.
Wells and Gann's No. 1 T. H. Gill, 330 ft. from N and E lines of lease, R. W. Smith Sur. ..... Moved off location.
Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ..... S.D. 1,465 ft.

SMITH COUNTY

Cockburn and Hooper's No. 1 Lula Jackson, 330 ft. from E line and center of N and S lines of 27.8-ac. tract, E. Daniels Sur. ..... Drlg. 2,000 ft.
Golden Eagle Oil Co.'s No. 1 T. B. Collier, 137 ft. from S line and 150 ft. from E line of lease, J. Jordan Sur. ..... Derrick.
Holden Eagle Oil Co.'s No. 1 L. S. Sartain, center of 5-ac. lease, J. Jordan Sur. ..... Derrick.
Hooper et al's No. 1 Lule Jackson, 330 ft. S and 530 ft. E of most northerly SW cor. of Monroe Shell Robinson lease, E. Daniels Sur. ..... Fishing for drill stem, T.D. 2,934 ft.
McRabie et al's No. 1 C. P. Hamilton, 330 ft. from S and E lines of 255-ac. tract, Jackson Rector Sur. ..... Derrick.
Joiner et al's No. 1 C. S. Jackson ..... S.D.; swabbed dry; T.D. 4,045 ft.
Rabe et al's No. 1 Bateman, 322 ft. from S line and 278 ft. from E line of 15-ac. lease, James Jordan Sur. ..... Derrick.
Alph Tillman et al's No. 1 Jessie Cole, 137 ft. from E line and 375 ft. from N line of 32-ac. lease, center of 5-ac. lease, James Jordan Sur. ..... Top sand 3,760 ft.; T.D. 3,761 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ..... T.D. 4,212 ft.

UPSHUR COUNTY

Cranfill & Reynolds' No. 1 Laney Graves, 330 ft. from S and E lines of lease, M. Irwin Sur. ..... Derrick.
Everetts Oil Co.'s No. 4 A. J. Sanders, 330 ft. from S and W lines of lease, T. Allen Sur. ..... Derrick.
Grover Hart's No. 1 Allen, 330 ft. from S and E lines of lease, one-half mile W of Mountain, Gonzales Sur. ..... Derrick.
Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1½ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ..... Waiting orders 3,710 ft.
Island Oil Co.'s No. 3 Bonner, center of lease, J. McRae Sur. ..... Derrick.
Lester and Duffield's No. 1 L. Graves, 169 ft. N and 330 ft. W of SW cor. of J. McRae Sur., M. Irwin Sur. ..... Drlg. 600 ft.
Pitts et al's No. 1 H. Davis, center of 7.5-ac. lease, W. R. Stephens Sur. ..... Temp. abnd.

John T. Robbins' No. 1 East Mt. Baptist Church, 275 ft. W of Trico's No. 1 East Mt. School Lot, William King Sur. ..... Location.
Scott & Ashford's No. 1 Duphrates, 772 ft. from N line and 2,805 ft. from E line of lease, Del Torres Sur. .... Derrick.
Henry Sikes' No. 1 J. P. Lynch, 193 ft. SE of Salome-Cooper's No. 6 O'Bryan and 175 ft. NE of No. 5, J. Pineda Sur. ..... Drlg. 600 ft.
H. K. Spear's No. 1 D. Bruner, 700 ft. W and center of N and S lines of 5-ac. lease, M. Chandler Sur. .... Drlg. 2,080 ft.
The Texas Company's No. 1 J. Williams, 330 ft. from N and E lines of 93.34-ac. lease, Jackson Crouch Sur. ..... Drlg. 2,450 ft.
Turnbow's No. 1 D. C. Shelton, center of 2½-ac. tract, Wm. King Sur. ..... Derrick.
Watson's (formerly Kinsey) No. 1 D. F. Smith, 466 ft. from S line and 1,165 ft. from E line of 266-ac. tract, J. R. Davis Sur. ..... Drlg. 1,865 ft.

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 225-ac. tract, 3½ miles S of Canton, M. J. DeCadena Sur. ..... S.D. 2,405 ft.
Humble Oil & Ref. Co.'s No. 3 L. V. Freeman, 250 ft. N and E of SW cor. of lease, John Walling Sur. .... Cmt. setting 303 ft.
Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tract, John Conner Sur. ..... S.D. 2,300 ft.
Pure Oil Co.'s No. 5 A. W. Ellison, 710 ft. S of N line and 700 ft. W of E lines of lease, James Rose Sur. ..... Coring 3,000 ft.
Pure Oil Co.'s No. 1 A. E. Ellison, 150 ft. S and E of NW cor. of lease, John Walling Sur. ..... Derrick
Pure Oil Co.'s No. 4, 250 ft. S of N line and 250 ft. W of E line of lease, Mund Gross Sur. ..... Location.
Pure Oil Co.'s No. 14 R. L. Wells, 500 ft. W of E line and 550 ft. N of S line of lease, Mund Gross Sur. .... Location.
A. C. Rowan's No. 1 W. E. Price, 150 ft. from N line and 150 ft. from W line of 28-ac. tract, John Walling Sur. ..... Location.
Van Oil Association's No 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 2,850 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 350 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur. .... Coring 1,906 ft.
W. B. Saulsbury's No. 1 T. H. Peters, 600 ft. from S line and 200 ft. from E line of 320-ac. tract and survey, 4 miles E of Mineola, W. B. McNutt Sur. .... Bldg. derrick.
Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ..... T.D. 3,500 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 180 ft. from S line of 160-ac. tract and 2¼ miles S of Kantes in Sarah McDonald Sur. ..... Drlg. 2,350 ft. (corrected).

Wildcat Operations in West Texas

(Continued from Page 41)

Continental Oil Co.'s No. 2 Hart-Phillips, 660 ft. from N, 1,980 ft. from W, Sec. 24, Blk. 33, Twp. 2-s, T.&P. Sur. ..... Drlg. 1,292 ft.
B. C. Mann's No. 1 Moore, C NE, Sec. 11, Blk. 35, Twp 3s, T.&P. Sur. ..... Fsg. 575 ft.

HOWARD COUNTY

American-Maracaibo's No. 5-A Settles, 1,896 ft. from N. 1,884 ft. from W, Sec. 6, Blk. 32, T.&P. Sur. ..... S.D. 185 ft.
Amerada Pet. Corp.'s No. 4 Coffee, 1,300 ft. from N and 1,650 ft. from W, Sec. 22, Blk. 33, Twp. 2s, T.&P. Sur. ..... Drlg. 2,280 ft.; T.P. 2,253 ft.
Amerada Pet. Corp.'s No. 5 Coffee, 2,310 ft. from N and 1,650 ft. from W, Sec. 22, Blk. 33 ..... Drlg. 1,825 ft.
Green O. & R. Co.'s No. 1 Denman, 990 ft. from S and 2,310 ft. from W, Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. **Spudded and S.D.**
Merrick & Lamb's No. 4 Chalk, 1,650 ft. from N and 990 ft. from W, Sec. 125, Blk. 29, W.&N.W. Sur. ..... S.D. 975 ft.
Myers et al's No. 1 Denman, 2,305 ft. from S and 2,320 ft. from E Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. .... S.D. 1,030 ft.
Sinclair-Prairie Oil Co.'s No. 2 Dodge, 2,313 ft. from S and 300 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. Sur. ..... T.D. 2,794 ft.; pumping.
Sinclair-Prairie Oil Co.'s No. 3 Dodge, 1,650 ft. from S and 429 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. .. Drlg. 685 ft.

IRION COUNTY

Davis et al's No. 1 Suggs, 1,560 ft. from S and 925 ft from W, Sec. 3,081, Blk. 26, H.&T.C. Sur. ..... S.D. 7,543 ft.
Stanolind Oil & Gas Co.'s No. 1 Williams, 1,320 ft. from S and E of Sec. 1,196, T.T.R.R. Sur. ..... S.D. 7,420 ft.

JONES COUNTY

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 42.4-acre tract in G. Martinez Sur. ..... S.D. 1,005 ft.; temp. abnd.
Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of N half of Sec. 39, Blk. 18, T.&P. Sur. ..... Spudded and S.D.
J. M. Johnson's No. 1 Swann, 6,150 ft. from S and 1,550 ft. from E, I. Miley Sur. ..... Drlg. 2,420 ft.
Robert Oil Co.'s No. 1 Swann, 2,350 ft. from W and 2,920 ft. from S, I. Miley Sur. ..... T.D. 2,541 ft.; T.P. 2,503 ft.
Smart & Reynolds' No. 1 Reynolds, 2,500 ft. from N and 150 ft. from W, Sec. 2, W. T. Scott Sur. No. 3.. S.D. 175 ft.
Southern Oil Co.'s No. 1 Sears, 300 ft. from S and W J. H. Grayson Sur. ..... S.D. 2,360 ft.
C. S. Spelling et al's No. 1 Lillie, 200 ft. from N and W Sec. 4, E. Miller Sur. No. 2 ..... S.D. 1,751 ft.
Transcontinental Prod. Co.'s No. 1 Rust, 5,800 ft. N and 995 ft. W of SE cor. J. J. Hughes Sur. 556 ..... Spudded.
Ungren & Frazier's No. 2 King, 465 ft. from N, 150 ft. from E, Subd. 6, M. Bueno Sur. ..... Rigging up.
Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ..... Location.

LOVING COUNTY

Eppenauer Drlg. Co.'s No. 1 Victor, 2,310 ft. from NE and 330 ft. from SE Sec. 4, Blk. 2, W.&N.W. Sur. ... Location.
Ervin & Mahres' No. 1 Thrope, 2,310 ft. from E and 330 ft. from S, Sec. 46, Blk. 53, T.&P. Sur. ..... S.D. 810 ft.
Fair Lawn Syndicate's No. 1 Brookfield, 330 ft. from N and W, Sec. 30, Blk. 29, P.S.L. ..... Drlg. 3,832 ft.
Goldman et al's No. 1 Allen, 330 ft. from NE and NW of Sec. 90, Blk. 1, W.&N.W. Sur. ..... Drlg. 2,465 ft.
Goldman et al's No. 2 Allen, 330 ft. from NW, 2,310 ft. from SW, Sec. 90, Blk. 1, W.&N.W. Sur. ..... Material on ground.
Goldman et al's No. 1 Reagan-McElvain, 330 ft. from NE, 2,310 ft. from NW, Sec. 84, Blk. 1, W.&N.W. Sur.. Cellar.
Lewis & Siegel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 56, Twp. 1, T.&P. Sur.. S.D. 2,280 ft.
Martin et al's No. 1 Wheat, 990 ft. from SW and SE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... Rig.
Miller et al's No. 1 Ferguson, 990 ft. from NE of Sec. 44, Blk. 29 ..... Spudded and S.D.
Thomas' No. 1 Wheat, 2,310 ft. from NW, 990 ft. from NE, Sec. 83, Blk. 1, W.&N.W. Sur. ..... T.D. 3,660 ft; straightreaming csg. at 3,100 ft.
Trinity Drlg. Co.'s No. 1 Wheat, 2,310 ft. from SW, 330 ft. from SE, Sec. 3, Blk. 2, W.&N.W. Sur. ..... S.D. 1,300 ft.

MENARD COUNTY

Priest's No. 1 Sorrel, 1,000 ft. from E and 200 ft. from S cor., Sec. 122, E.L.R.R. Sur. ..... S.D. 2,860 ft.

PECOS COUNTY

Adams et al's No. 1 Shearer, 1,650 ft. from SE and 330 ft. from NE Sec. 101, Blk. 10 H.&G.N. Sur. .....
Aero Gas & Royalty Co.'s No. 2 Byrne, 1,470 ft. from NW and 1,500 ft. from SW, Sec. 54, Blk. 10, H.&G.W. Sur. ..... S.D. 1,100 ft.
Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 39, G.C.&S.F. Sur., Blk. 194 ..... Location.
Hampton et al's No. 1 Byrne, 1,980 ft. from NW and 1,500 ft. from NE, Sec. 54, Blk. 10, H.&G.N. Sur. ... S.D. 1,395 ft.; T.P. 1,356 ft.
Messinger et al's No. 1 Jones, 1,200 ft. from NW, 1,290 ft. from SW, Sec. 5, Blk. 9, H.&G.N. Sur. ..... Location.
New State Oil Co.'s No. 1 Tippett, 1,349 ft. from S and 330 ft. from E, Sec. 40, Blk. 194, G.C.&S.F. Sur. ..... S.D. 1,345 ft.; running 7-in. csg.
Steed Prod. Co.'s No. 1 Monroe, 150 ft. E, 300 ft. N of SW cor. of lease, Sec. 39, Blk. 194, G.C.&S.F. Sur..... S.D. 515 ft.; T.P. 462 ft.

PRESIDIO COUNTY

Sadler et al's No. 1 Biedsoe, 2,640 ft. from N and W Sec. 15, Blk. 354, G.C.&S.F. Sur. ..... S.D. 328 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 6-C University, 1,370 ft. fro mS and 1,000 ft. from E, Sec. 12, Blk. 2 ..... T.D. 8,836 ft.; increased from 3,500 to 4,033 bbls. per day in 4 days with 37,000,000 ft. gas.
Big Lake Oil Co.'s No. 7-C University, 1,570 ft. from W and 725 ft. from S, Sec. 25, Blk. 9 ..... Drlg. 7,140 ft.
Group Oil Corp.'s No. 5-B University, 2,700 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... Drlg. ahead below 5,300 ft.

REEVES COUNTY

F. McDorman et al's No. 1 Ray Roberts et al, 2,410 ft. from S and E lines of Sec. 22, Blk. 59, P.S.L. Sur. ... S.D. 1,903 ft.
Southern Star Oil Co.'s No. 1 Wright, 1,320 ft. from S and W, Sec. 58, Cassel's Sur. ..... S.D. 250 ft.

RUNNELS COUNTY

Blue Bonnett Oil Co.'s No. 1 McMillan, 1,368 ft. from N and 660 ft. from W, Sec. 22, N. Travis Sur. ..... T.D. 2,522 ft.; T.P. 2,520 ft.; flowing only 70 bbls. per day.
Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-20 ft.; S.D. 3,400 ft.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ..... T.D. 5,410 ft.; fishing.
Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... S.D. 5,580 ft.
George Wilson's No. 1 Page, Sec. 40, Blk. L, 1,290 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ..... S.D. 5,052 ft.

SCURRY COUNTY

G. E. Dickman et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 375, Blk. 2, E.&T.C. Sub. ..... S.D. 5,100 ft.
W. S. Guthrie's No. 1 Snyder National Bank, 330 ft. from N and 2,310 ft. from E of Sec. 115, Blk. 97, H.&T.C. Sur. ..... Drlg. 2,035 ft.
Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 68, Blk. 3, H.&G.N. Sur. ..... Spudded and S.D.
Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ..... S.D. 4,992 ft.

TAYLOR COUNTY

Dunigan et al's No. 2 Hunter, 2,337 ft. from N and 3,567 ft. from E of Sec. 27, W. R. Wills Sur. No. 122.. Drlg. 1,510 ft.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M.-K.-T. Sur. ..... S.D. 2,269 ft.
Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Georgetown Ry. Sur. ..... S.D. 3,150 ft.; moved off tools.
Miller Bros.' No. 1 Allison & Burke, C NW Sec. 10, Blk. 176, T.&P. Sur. ..... S.D. 120 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S, Sec. 26, Blk. 161, G.C.&S.F. Sur.. S.D. 6,120 ft.
Jones et al's No. 1 Pankenham, C SE NW Sec. 43, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ..... S.D. 2,545 ft.
Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ..... Fsg. 2,440 ft.

TOM GREEN COUNTY

Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 587 ft. from E of John McNeese Sur. ..... S.D. 760 ft.; S.O and gas 725 ft.
Mintex Oil Co.'s No. 1 Campbell Est., 445 ft. from S and 630 ft. from W of Sec. 180, Dist. No. 11, S.P. Sur.. S.D. 1,994 ft.
Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ..... S.D. 200 ft.

UPTON COUNTY

Clark-Cooper's No. 1 Lane, 2,310 ft. from N and 990 ft. from E Sec. 36, Blk. 1, M.-K.-T. Sur. ..... Location.
Farley et al's No. 3 Lane, 1,650 ft. from S and 330 ft. from W, Sec. 36, Blk. 1, M.-K.-T. Sur. ..... Drlg. 2,385 ft.; to test hole full of oil.
Hope Pet. Co.'s No. 2 Lane, 2,310 ft. from N, Sec. 36, Blk. 1, M.K.&T. Sur. ..... S.D. 600 ft.
White's No. 1 Lane, 2,310 ft. from S and 990 ft. from E Sec. 36, Blk. 1, M.-K.-T. Sur. ..... Location.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 31, Blk. 1 ,I.&G.N. Sur. ... S.D. 400 ft.
O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, I.&G.N. Sur., elev 2,130 ft. ..... S.D. 6,780 ft.

WARD COUNTY

Abell Bros. et al's No. 1 Smith, 330 ft. from NE and NW, Sec. 4, Blk. 34, H.&T.C. Sur. ..... S.D. 2,265 ft.
Abell Bros.' No. 2 Smith, 2,310 ft. from SE and 2,020 ft. from NE, Sec. 4, Blk. 34, H.&T.C. Sur. ..... S.D. 2,252 ft.
Abell Bros.' No. 3 Smith, 2,310 ft. from NE and NW, Sec. 4 ..... T.P. 2,351 ft.; T.D. 2,412 ft.; cleaning out after shot.
Atlantic Oil Prod. Co.'s No. 2 Barrow, 1,650 ft. from NE and 330 ft. from NW Sec. 23, Blk. 5, H.&T.C. Sur.... Location.
Barnsdall Oil Co.'s No. 2 Henry, 990 ft. from SE and 330 ft. from NE, Sec. 28, Blk. B-29, P.S.L. Sur..... Drlg. 610 ft.
Bradford & Bentley's No. 1 B. Carson, 1,650 ft. from the NE line and 990 ft. from the SE line of Sec. 26, H.&T.C. Sur., Blk. ..... S.D. 2,350 ft.; flowing 15 bbls. day.
Caprito et al's No. 1 Beatty, 330 ft. from SW and 990 ft. from SE, Sec. 3, Blk. 34, H.&T.C. Sur. ..... S.D. 690 ft.
Eastland Oil Co.'s No. 1 Green, 2,364 ft. from NW and 2,310 ft. from SW Sec. 4, Blk. 34, H.&T.C. Sur. ..... T.D. 2,314 ft.; flowing 75 bbls. day.
Eastland Oil Co.'s No. 2 Weiss, 1,728 ft. from SW and 2,365 ft. from SE, Sec. 4, Blk. 34, E.&T.C. Sur. ..... Location.
Eastland Oil Co.'s No. 1-A Weiss, 2,364 ft. from SE, 333 ft. from SW, Sec. 4, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,000 ft.
Eppenauer's No. 1 Purcell, 365 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 14, H.&T.C. Sur. ..... T.D. 2,740 ft.
H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... S.D. 2,223 ft.
Gulf Production Co.'s No. 22 O'Brien, 1,100 ft. from N and 330 ft. from E, Sec. 16, Blk. F, G.M.M.B.&A. Sur. ..... Drlg. 2,450 ft.
Gulf Prod. Co.'s No. 12 Hutchings, 330 ft. from N, 990 ft. from W, Sec. 3, Blk. F ..... Drlg. 1,380 ft.
Kregle et al's No. 1 Heasler, 3,062 ft. from SE, 330 ft. from NE, Sec. 46, Blk. 34, H.&T.C. Sur. ..... Drlg. 410 ft.
Landreth Prod. Co.'s No. 1 Barker, 330 ft. from NW, 437 ft. from NE, Sec. 27, Blk. B-29, P.S.L. Sur. ..... Rigging up.
Massie et al's No. 1 Stewart, 330 ft. from SW and SE, Sec. 12, Blk. 14, H.&T.C. Cur. ..... S.D. 2,468 ft.; shot and flowing 35 bbls. per day.
Maxwell's No. 1 Brillhart, 2,310 ft. from NE and SE Sec. 13, Blk. 34, H.&T.C. Sur. ..... Location.
R. F. Owen's No. 1 Lee, 1,344 ft. from NW and 4,632 ft. from SW, Sec. 1, J. Howe Sur. ..... Set 8¼-in. csg. at 1,940 ft.
Penn Oil Co.'s No. 1 York, 2,310 ft. from NW and SW Sec. 10, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,200 ft.

Penn Oil Co.'s No. 1 Hardage-Wilson, 330 ft. from NE and SE Sec. 11, Blk. 34, H.&T.C. Sur. ..... Location.
Plains Prod. Co.' and Simms Oil Co.'s No. 1 Benton Land Co., 440 ft. from the SE and 440 ft. from SW lines of Sec. 24, W.&N.W.R.R. Sur., Blk. 1 ..... Drlg. 4,376 ft.
Rector Oil Co.'s No. 1 Monroe, 660 ft. from NE and SE. Sec. 62, Blk. 33, H.&T.C. Sur. ..... Spudding.
Renaud-Prettyman's No. 1 University, 330 ft. from N and E Sec. 4, Blk. 16 ..... Drlg. 2,570 ft.
Richardson's No. 10 O'Brien, 1,897 ft. from N and 990 ft. from W Sec. 5, Blk. F ..... Location.
Rixford-Fugiarr's No. 1 London, 660 ft. NW, 330 ft. NE E cor. Sec. 10, Blk. 32, H.&T.C. Sur., but in Sec. 5 ..... Spudded and S.D.
T P. Coal & Oil Co.'s No. 4 James, 330 ft. from NE and 2,305 ft. from SE, Sec. 5, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,615 ft.
Thomas et al's No. 1 Bennett, 3,310 ft. from NE and SE, Sec. 16, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,640 ft.
Weekly Oil Corp.'s No. 1 Burks, 330 ft. from SE and 1,320 ft. from SW Sec. 26, Blk. B-29, P.S.L. Sur. ..... Location.
White et al's No. 1 Burtner, 150 ft. from NE and 515 ft. from SE of Sec. 8, Blk. 32, H.&T.C. Sur. ..... **S.D. 755 ft.**

WINKLER COUNTY

Sid Richardson et al's No. 1 Scarborough, 1,650 ft. from N and W, Sec. 1, Blk. 77, P.S.L. Sur. ..... Rigging up machine.
Sid Richardson et al's No. 2 Sealy estate, 1,650 ft. from S and 330 ft. from W, Sec. 94, Blk. A, G.M.M.B.&A. Sur. ..... Rigging up machine.

Wildcat Operations in Texas Panhandle

Week Ending August 8

CARSON COUNTY

Company, well, farm name, section and block— Remarks:

H. A. M. Oil Co.'s No. 2 Cooper, 330 ft. from S and E. Sec. 5, Blk. 9, I.&G.N. Sur. ..... Drlg. 600 ft.
Osborne's No. 1 Byrum, 330 ft. from N and E, N½ NW, Sec. 188, Blk. 3, I.&G.N. Sur. ..... T.D. 1,125 ft.; set 10-in. csg.
Skelly Oil Co.'s No. 11 East Schaffer, 440 ft. from N, 2,640 ft. from E, Sec. 189, Blk. 3, I.&G.N. Sur. ..... Drlg. 3,175 ft.; 1,300 ft. oil in hole; T.P. 3,140 ft.
Stubblefield-Shell's No. 3 Cooper, 330 ft. from N and 330 ft. from E of SE, Sec. 5, Blk. 9, I.&G.N. Sur. ..... Cellar.
Texoma Nat. Gas Co.'s No. 1-T, 2,640 ft from N line, 783 ft. from W line, Sec. 31, Blk. 7, I.&G.N. Sur. ..... Drlg. 2,225 ft.
Texoma Nat. Gas Co.'s No. 2-G Burnett, 1,342 ft. from S, 2,670 ft. from W, Sec. 102, Blk. 5, I.&G.N. Sur. ..... Location.
Texoma Nat. Gas Co.'s No. 1-T Burnett, 1,334 ft. from N and E of E half, Sec. 64, Blk. 5, I.&G.N. Sur. ..... Cellar.

COLLINGSWORTH COUNTY

Cochran Bros.' No. 1 Atkinson, 660 ft. from N and E, Sec. 36, Blk. 21, H.&G.N. Sur. ..... Spudded.
Downey et al's No. 1 Beasley, SE cor. SW SE, Sec. 35, Blk. 15, H.&G.N. Sur. ..... **Rigged up.**
Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur. ..... Spud.

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersil, 330 ft. from N, 1,320 ft. from E, Sec. 40, Blk. B, John H. Stevens Sur. ..... Drlg. 1,525 ft.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 15-2n-3e ..... Drlg. 1,275 ft.

LET'S CONTINUE TO MOVE AHEAD

This Company wants to assume its share of the industry's burdens.

In the long run this policy will promote our interest, in furthering the steady growth this Company has already experienced.

W. S. Skelly

SKELLY OIL COMPANY

TULSA — KANSAS CITY

EL DORADO, KANSAS

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ..... **S.D. 2,428 ft.**
Bell O. & G. Co.'s No. 1 Tedesco-Webb, 330 ft. from S and E, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Drlg. 1,600 ft.
Boyes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur. ..... **S.D. 1,650 ft.**
Danciger O. & R. Co.'s No. 3 Williams, 150 ft. from N, 1,650 ft. from W S half NW, Sec. 7, Blk. 1, A.C.H.& B. Sur. ..... T.D. 2,584 ft.; standardizing.
Dixon Creek Oil Co.'s No. 1 Chapman, 330 ft. from S and W, Sec. 69, Blk. 25, H.&G.N. Sur. ..... Building rig.
Graham-Crue Hoover's No. 1 Barrett, 330 ft. from S and W, Sec. 130, Blk. 3, I.&G.N. Sur. ..... Rig.
Granite Prod. Co.'s No. 1 Chapman, 275 ft. from N line, 110 ft. from W line, S½ SW, Sec. of Blk. 26, H. &G.N. Sur. ..... T.D. 2,900 ft.; plugged back to 2,343 ft.; testing.
Gulf Prod. Co.'s No. 7 Saunders, 330 ft. from N and W, SW, Sec. 40, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,425 ft.
Jewel Oil Co.'s No. 1 Meers, 330 ft. from S and W. NW SW, Sec. 106, Blk. 3, I.&G.N. Sur. ..... Fishing 3,483 ft.
Kewanee O. & G. Co.'s No. 1-C Adams, 330 ft. from S and E, Sec. 3, Blk. 26, H.&G.N. Sur. ..... Drlg. 350 ft.
Kewanee O. & G. Co.'s No. 1-F Morse, 330 ft. from S and W, Sec. 3, Blk. 26 ..... Rig.
Magnolia Pet. Co.'s No. 6 fee, 660 ft. from S and W, Sec. 14, Blk. 3, I.&G.N. Sur. ..... Rig.
Nipper et al's No. 1 Morse, 330 ft. from N and E, Sec. 1, Blk. 24, I.&G.N. Sur. ..... Fishing 2,635 ft.
Nabob Oil Co.'s No. 1-E Morse, 330 ft. from S and W, W½ SE, Sec. 67, Blk. 25, H.&G.N. Sur. ..... T.D. 2,623 ft.; 500 ft. oil in hole; parted pipe.
Parton & Holt's No. 2 Morse, 330 ft. from W, 350 ft. from N, W¼ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Drlg. 2,475 ft.; T.P. 2,435 ft.
Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... Drlg. 1,360 ft.
Pulse-Shell Pet. Corp.'s No. 1 Culler, 330 ft. from S and E, Sec. 173, Blk. 3, I.&G.N. Sur. ..... Fishing 3,141 ft.
Pulse-Shell's No. 1 Brown, 290 ft. from N, 350 ft. from E of NW, Sec. 138, Blk. 3, I.&G.N. Sur. ..... Cellar.
Saunders et al's No. 2 Sullivan, 823 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, I.&G.N. Sur. ..... Will plug back to 3,275 ft. and shoot.
Skelly Oil Co.'s No. 3 Vicars, 330 ft. from S and E, Sec. 127, Blk. 3, I.&G.N. Sur. ..... Rigging up rotary.
Skelly Oil Co.'s No. 5 Saunders, 330 ft. from S, 928 ft. from E, Sec. 4, Blk. 1, A.C.H.&B. Sur. ..... Rig.
Sun Oil Co.'s No. 3 Combs-Worley, 450 ft. from N and 660 ft. from E of SE, Sec. 35, Blk. 3, I.&G.N. Sur. ..... Cellar.
Tarber's No. 1 Saunders, 330 ft. N and W, Sec. 3, Blk. 1, B.B.&S.F. Sur. ..... Location.
The Texas Co.'s No. 4 Bull, 1,65 ft. from S, 330 ft. from W, Sec. 2, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,700 ft.
The Texas Co.'s No. 5-B McLarty & Lester, 990 ft. from N line, 950 ft from W line, Sec. 2, B.&B. Sur. ..... Drlg. 2,590 ft.
The Texas Co.'s No. 10 Cook-Faulkner, 330 ft. from S, 1,605 ft. from W, Sec. 29, Blk. B-2, H.&G.N. Sur. ..... T.D. 2,770 ft.; drlg. by lost tools.
The Texas Co.'s No. 11 Williams, 330 ft. from N, 990 ft. from E NW, Sec. 7, Blk. 1, A.C.H.&B. Sur. ..... Rotary rig.
Thorp et al's No. 1 Short, 330 ft. from N and E, Sec. 2, Blk. 1, H.&G.N. Sur. ..... T.D. 2,235 ft.; underreaming.
Tripplehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ..... T.D. 900 ft.; pipe stuck.
Travis et al's No. 2-B Webb, 990 ft. from S, 330 ft. from E of NW, Sec. 61, Blk. 25, H.&G.N. Sur. ..... Rigging up standard tools.
Weitzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ..... Drlg. 275 ft.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E. G. S. Hood Sur. ..... To deepen old well; T.D. 5,055 ft.; cleaning out.

HUTCHINSON COUNTY

Base's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-31, T.C.R.R. Sur. ..... T.D. 3,080 ft.; estm. 5 or 10 bbls.; may plug.
Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.
Deal O. & G. Co.'s No. 3 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur. ..... S.D. 450 ft.
Holmes & Newblock's No. 2 Moore-Langdon, 330 ft. from N and W, Sec. 125, Blk. 4, I.&G.N. Sur. ..... S.D. for repairs 2,947 ft.
Huber Pet. Co.'s No. 1-A Weatherly, 330 ft. from N and W, Sec. 24, Blk. Y, A.&B. Sur. ..... Drlg. 3,135 ft.; T.P. 2,930 ft.; showing oil and water.
Huber Pet. Co.'s No. 2 Christian, 330 ft. from S and E, SW, Sec. 33, Blk. Y, A.&B. Sur. ..... Rig.
Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 6, Blk. 1, B.&B. Sur. ..... Plugged back to 3,146 ft.; S.D.
Oates & Morrow's No. 2 Starnes, 1,400 ft. from S, 630 ft. from E, Sec. 24, Blk. M-23, T.C.R.R. Sur. ..... Spudded.
Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ..... Shut down.
Rock Creek Oil Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ..... Rig.
Steckel Prod. Co.'s No. 3-D Whittenburg, 330 ft. from S and 990 ft. from W, Sec. 38, Blk. M-23, T.C.R.R. ..... Drlg. 1,055 ft.
Timms-Deatch's No. 4 Moore, 330 ft. N and W, Sec. 124, Blk. 4, I.&G.N. Sur. ..... Rig.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... S.D. 240 ft.
Interstate's No. 1 Nield, C NE, Sec. 18, Blk. 44, H.&T. C. Sur. ..... Rig up.
Pollard et al's No. 1 Hall, 330 ft. S and E, NE, Sec. 131, Blk. 3-T, T.&N.O. Sur. ..... Rig on ground.
Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 366, Blk. 44, H.&T.C. Sur. ..... T.D. 3,163 ft.; drill pipe stuck.
Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ..... Rig.
Sunray Oil Co.'s No. 2 Jones, 330 ft. N and W, W½ SW, Sec. 164, Blk. 3-T, T.&N.O. Sur. ..... Rig.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 16, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ..... S.D. 400 ft.
Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. S, G.C.&S.F. Sur. ..... T.D. 4,000 ft.; fishing pipe.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... T.D. 4,095 ft.; ran 6-in. csg.
Travis et al's No. 1 Cunningham, 330 ft. S and W, Sec. 74, Blk. M-2, H.&G.N. Sur. ..... S.D. 2,690 ft.

WHEELER COUNTY

Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ..... T.D. 2,760 ft.; S.D. for pipe line connection.
Piney Oil & Gas Co.'s No. 4 Thompson, 330 ft. from S and E of E half SW, Sec. 42, Blk. 24, H.&G.N. Sur. ..... Rig.

Oklahoma Production and Pipe Line Shipments May Decline in August From July Totals

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

Production from the prorated fields and pipe line shipments are expected to show a decline during the month of August compared to the July totals. The decrease in the demand for crude oil in the Oklahoma City Field may result in a large overproduction being built up. There was an increase in the overproduction during July compared to the previous month. The Holdenville area, in Hughes County, is developing into an active district with new locations and completions. Production in southern Oklahoma was extended in the East Comanche Field, Stephens County, with the largest well in the pool. Osage tribal council asks permission to hold more frequent auction sales in the county.

The recent completion of the Shell Petroleum Corp. in Logan County, producing from the School Land sand, was shut in when production declined to 760 bbls. a day. The well is No. 6 McCulley, in Section 39-19-4w, which made 1,100 bbls. when first completed.

Production figures recently released show that the Oklahoma City Field produced a total of 2,948,814 bbls. in June and in July made 2,816,839 bbls. The pipe line shipments for June totaled 2,865,839 bbls. and the July shipments totaled 2,804,326 bbls. Stocks of crude oil in the Oklahoma City Field totaled 663,643 bbls. the first of August, an increase of only 1,462 bbls. in a month.

The allowable for the month of June was 2,713,465 bbls. with 887 wells eligible to produce, and the allowable for July was 2,363,129 bbls. with 904 wells eligible to produce.

Active District

The West Holdenville area is developing into an active district with new completions and locations which call for offsets, while other tests are preparing to spud.

George Manahan and others' No. 1 Narcomey, NW cor. SW, Section 10-7-8, in the West Holdenville Pool, Hughes County wildcat, found oil in the Booch sand at 2,875-2,923 feet where it flowed 50 bbls. of oil the first hour and 450 bbls. in 15 hours. The gas was estimated at 20,000,000 feet a day. The well has been classified as a wildcat and its production limited to 50 bbls. a day. It is being offset on the west by the Mid-Continent Petroleum Corp.'s No. 2 Jacobs. Manahan and others will drill the south offset. Leases on the north and east were open at the time the well was completed.

Another recent completion in the district was Mid-Continent Petroleum Corp.'s No. 1 W. Jacobs, NW cor. NE SE, Section 9-7-8, which made 420 bbls. of oil in 20 hours from sand at 2,875-2,934 feet. The gas was estimated at 22,000,000 feet a day. This well calls for two offsets.

Two other tests were preparing to spud in the West Holdenville Field, Milam & Capshaw's No. 1 Holmes, SE cor. SW, Section 11-7-8, and Gentner and others' No. 1 Holmes, SW cor., Section 11-7-8.

Limestone Oil & Gas Co.'s No. 2 Walker, C N half SE NE, Section 15-7-8, found a sand at 1,180-1,207 feet and landed 8-inch casing at 1,106 feet. The test was drilled to a total depth of 1,238 feet where oil rose 1,000 feet in the hole and it swabbed 60 bbls. in 10 hours. The test will be shot and cleaned out before being put on the pump.

The Ute Oil Co.'s No. 1 Combs, SW cor. NE SE, Section 15-7-8, in the same area, was drilling at 3,836 feet.

August Allowable

Although the allowable production of the Oklahoma City Field remains the same as it was in July, it is approximately 9,000 bbls. a day in excess of the nominations. The allowable was fixed at 87,350 bbls. daily. While the pipe line companies nominated considerably less crude there is a chance that all the allowable oil will be absorbed.

Many of the old wells and leases in the Oklahoma City Field are unable to make their allowables and are going deeper each day into the underproduction column. The failure of these wells to contribute their share to the market is expected to favor the other wells in the field.

It has been the desire of the Corporation Commission and the proration board to eliminate the underproduction or to keep it at a low figure. Some time ago a list of underproduced wells was compiled and since that time recommendations have been made by the commission to strike off about half of these wells which are so far underproduced that it is apparent they are unable to make their allowables. Extensions have been granted several times on some of the underproduced wells.

In an attempt to find additional markets a canvass was made of all the purchasers in the Oklahoma City Field to ascertain whether it would be possible for any of them to raise their nominations for August. But no increases in the nominations were found to be available at that time and the order made the same for August as during July.

Other prorated fields in the State are expected to show declining demand for the month of August. The estimated decline for the Greater Seminole area was 6,000 bbls. daily for August compared to July.

Abandons Wells

The Oklahoma Corporation Commission announces that its representatives have plugged and abandoned a total of 98 wells during the month of July. These wells were scattered in 19 different counties. Those west of the Indian Meridian, include Kay County, with 4 wells, Grant County, with 2 wells, Carter County, with 3 wells, Logan County, with 3 wells, Grady County, with 2 wells, Stephens County, with 6 wells, and Comanche County, with 7 wells.

Those located in ranges east of the Indian Meridian, include Lincoln County, with 2 wells, Osage County, with 2 wells, Seminole County, with 5 wells, Payne County, with 2 wells, Creek County, with 19 wells, Pawnee County, with 5 wells, Okfuskee County, with 4 wells, Okmulgee County, with 6 wells, Hughes County, with 1 well, Washington County, with 13 wells, Muskogee County, with 1 well, and Nowata County, with 12 wells.

Producing Area Extended

G. Pace has extended the producing area in the East Comanche Field of Stephens County and has staked a location for another test still further on the outskirts of the producing area. His No. 4 B. Watkins, SW cor. NW NW SW, Section 22-2s-7w, made 200 bbls. of oil on the pump from sand at 1,736-44 feet. This is the largest completion of the 19 producing wells in the area.

The same operator's No. 1 C. Watkins, NW cor. SE SW, Section 22-2s-7w, found a showing of oil in sand at a total depth of 1,780 feet. It was being prepared to make a production test. It is three locations east of production.

Meridian Oil Co.'s No. 2 Peck, NW cor. NW SW, Section 1-2s-8w, in the new pool about 7 miles southwest of Duncan, was completed for 20 bbls. of oil in sand at a total depth of 1,456 feet.

Continental Oil Co.'s No. 3 Dare, NW cor. SW SW SE, Sectioin 2-2s-8w, has cemented casing to test sands at 1,996-2,010 feet. The total depth is 2,126 feet.

E. Chamberlain and others' No. 1 Parker, NE cor. SE SE, Section 11-2s-8w, were testing sand at 1,764 feet. It is an old gas well drilled from 1,502 feet.

R. W. King and others' No. 1 School Land, NE cor. NW, Section 36-1s-9w, found a showing of oil and was bailing. The oil was found in sand at 2,024 feet. It is on the west edge of the Empire district.

G. Keith and others' No. 1 Blake, NW cor. NE SW, Section 16-1s-8w, found a showing of oil in sand topped at 2,115 feet. It is shut down at 2,126 feet and may be abandoned.

Chambers and Haines and others' No. 2 Dolen, SW cor. NW NW, Section 15-1s-8w, has cemented casing on top of an oil sand at 2,111 feet.

May Hold Osage Auction

The Osage tribal council, through Superintendent D. E. Murphy, has asked Secretary of the Interior Wilbur for permission to hold more frequent auction sales of Osage County leases. Under the present regulations Indian lease sales must be held once each Osage fiscal year, which ends April 8, but now the tribal council wants auctions held when it is deemed necessary. No decision has yet been made.

The recent discoveries in the western part of the county, where oil production has been found in the Siliceous lime and in the Hominy sand, has stimulated interest in the Naval reserve area of the county. Adjacent to the discoveries are a number of unsold sections of leases that many consider prospective oil territory which the tribal council believes would bring good prices at a sale.

Another test was preparing to clean out and drill deeper. I. Simons and P. G. McKeon and others' No. 1, SW cor. SE Section 3-23-8, to the east of the Naval reserve, will be drilled deeper. The test has been shut down at approximately 900 feet for some time.

Two other locations were announced for the Naval reserve area during the week. They are Johnson Oil & Refining Co.'s No. 1 well, SE cor. NE SE Section 11-23-7, near Bay Oil Co.'s recent producer, and Lewis Production Co.'s No. 1 well, NW cor. SW Section 27-24-7, on a tract recently acquired from the Peters Petroleum Corp.

The Champlin Refining Co.'s No. 1 well, NW cor. NE SE Section 24-24-7, found a showing of oil in the Burgess sand at 2,519-72 feet. It was reaming the casing through the sand to drill deeper.

Atlantic Oil Producing Co.'s No. 1-C Harjo, NE cor. SE Section 27-14-10, Creek County, was completed for 800 bbls. a day from the Misener sand at 3,250-70 feet. It made 320 bbls. of oil the first eight hours. It is the largest well completed in this area where several other wells have made from 50 to 125 bbls. a day.

Burke-Greis Oil Co. and Darby Petroleum Corp.'s No. 1 in the SW cor. NW Section 28-14-10, is a location nearly 2 miles to the west.

Atoka County

Wilkinson and others' No. 1 Miller, SW cor. NE NW Section 36-1-14, was abandoned at 295 feet. E. B. Croxton's No. 1 Mason, NW cor. Section 2-1s-14, was abandoned at 275 feet. Croxton & Martin's No. 1 Spring, NE cor. SW SE Section 4-1s-14, was abandoned at 400 feet. Hicks and others' No. 1 Little John, NE cor. NW NE SW Section 9-1s-14, was abandoned at 200 feet.

Carter County

Noble and others' No. 1 Trahern, NE cor. SE NW Section 31-1s-2w, is a rig. Robb and others' No. 3 Burton, NW cor. SW NE Section 31-1s-2w, is a location.

Creek County

L. C. Dean and others' No. 1 Ard, SE cor. NW Section 16-19-9, is a rig. T. E. Mann's No. 1 Coonrod, CEL SE SE Section 18-19-9, is a machine. Raymond and others' No. 1 Samuel, SW cor. NE Section 7-17-8, is digging cellar. Kirchner and others' No. 8 Wayman, NW cor. SW NW Section 22-15-8, is a rig on the ground. Short and others' No. 1 Company, 32-19-12 (twin), was drilling at 400 feet. Regal Oil Co.'s No. 32 Bigpond, CWL NW SW Section 6-18-12, is spudding. A. W. Swift and others' No. 2 Ford (twin), NW cor. NE NW Section 10-19-9, made 750,000 feet of gas from 1,247-87 feet. E. L. Robinson and others' No. 3 Davis, SW cor. NW NW Section 27-19-9, made 35 bbls. from 2,191-2,235 feet after two shots, one 150 quarts and the other 160 quarts.

Hughes County

Manahan and others' No. 1 Narconay, NW cor. SW Section 10-7-8, was completed for 670 bbls. from 2,895-2,923 feet.

Kay County

Harris & Haun's No. 2 Grose, SW cor. SE NE Section 17-29-1, an old well drilled deeper, made 44 bbls. from 3,343-69 feet.

Logan County

Wentz Oil Corp.'s No. 2 Williams, NW cor. NE Section 31-19-4w, an old well drilled deeper, total depth 5,945 feet, is rigging up.

Muskogee County

Western D. & E. Co.'s No. 2 Murrell, CEL SW SW Section 4-15-18, is spudding.

Okmulgee County

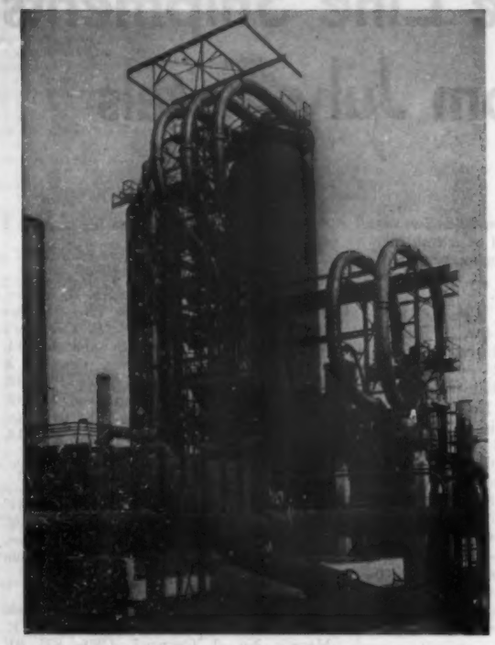
F. D. Misener's No. 1 Morris, NE cor. NW NW NW Section 21-14-14, was completed for 6 bbls. from 746-822 feet after an 80-quart shot.

Okfuskee County

Burke-Greis Oil Co.'s No. 1 Scott, C NE NE Section 20-10-10, is a rig. Steckoll and others' No. 4 Likowski, CNL NE SW Section 23-11-11, made 18 bbls. from 1,618-60 feet. Hillcrest & Hicks' No. 1 Lasley, SE cor. SW NW Section 25-10-10, made 25,000,000 feet of gas from 3,248-53 feet.

Oklahoma County

Champlin Refining Co. and others' No. 6 Central, NW cor. SE SE Section 3-11-3w, was completed for 805 bbls. in one hour from 6,412-6,502 feet. Slick and others' No. 7 Terminal, SE cor. NW Section 3-11-3w, made 5,196 bbls. in three and one-half hours from 6,324-6,429 feet. Same operators' No. 13 Classen-Edwards, CEL NE NW Section 3-11-3w, made



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16,533 bbls. in seven hours from Wilcox sand. Same operators' No. 15 Classen-Edwards, SE cor. NW NW Section 3-11-3w, made 5,181 bbls. in eight hours from Wilcox sand. Argood Oil Co.'s No. 1 Jones, SE cor. NW Section 22-11-3w, is a rig. Murray-Stephens' No. 1 Harper-

(Continued on Page 63)

Wildcat Operations in Oklahoma

Northern Oklahoma

ALFALFA COUNTY

Company, farm and location—	Remarks:
Smith Brothers' No. 1 Forbes, SE cor. NW NW Sec. 12-27-11w	S.D. 1,232 ft.
J. W. Bailey's No. 1 Acre, SW cor. NE Sec. 14-24-11w	S.D. 5,502 ft.

ATOKA COUNTY

Willis et al's No. 1 Roland, NW NE SE Sec. 6-1-15	S.D. 810 ft.
Hicks et al's No. 1 Norris, NE NW SE Sec. 15-1-15	Machine.
Newman et al's No. 1 Bassett, C NW Sec. 18-1-15	S.D. 110 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w	Rig.
Price-McFann's No. 1 Webster, C SW SW Sec. 34-8-26w	T.D. 2,344 ft.; plugged back to 1,890-1,900 ft.; 1,500,000 ft. gas
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-22-22w	S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 3,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w	Drlg. 282 ft.; C.O.
Washoma Oil Co. et al's No. 1 Phillips, C NW SW Sec. 13-19-10w	S.D. 5,115 ft.

CADDO COUNTY

Abernathy & Brown's No. 2 Houston, Sec. 24-6-13w	S.D. 1,115 ft.

CHEROKEE COUNTY

La Piere et al's No. 1 Woods, C SE SE Sec. 27-17-21	S.D. 1,504 ft.

COAL COUNTY

Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8	S.D. 2,395 ft.
Radial Oil Co.'s No. 1 McGraw, NE NW Sec. 2-1s-8	S.D. 1,450 ft.

COMANCHE COUNTY

G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

CREEK COUNTY

E. L. Jillson et al's No. 1 Starr, SE NW Sec. 18-15-8	Drlg. 1,340 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 12-14-14w	Location.

ELLIS COUNTY

L. C. Hierek's No. 1 Roper, C SE NW Sec. 21-20-24w	Rig on ground.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE, Sec. 32-3-7w	Drlg. 3,063 ft.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

GREER COUNTY

Dovell et al's No. 1 Capell, NW cor. Sec. 1-7-22w	5,000,000 ft. gas 1,455-65 ft.; T.D. 1,760 ft.; comp.
French's No. 1 Murphy, SW NW Sec. 23-7-21w	S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19	S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9	S.D. 200 ft.

HUGHES COUNTY

Hudspeth et al's No. 1 Harron, NW NE Sec. 3-8-8	Rig on ground.

KAY COUNTY

Bluebaugh et al's No. 1 Indian, C NW NE Sec. 30-25-1	10,000,000 ft. gas 2,556-63 ft.; mudding off gas est. at 5,000,000 f
Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1	Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2	S.D. 3,693 ft.
Blackwell Oil Co.'s No. 1 Harshman, Sec. 2-26-1w	Rig on ground.

KIOWA COUNTY

Christian's No. 1 Jones, NE SE Sec. 8-7-18w	Drlg. 1,418 ft.

LATIMER COUNTY

P. English's No. 1 Unknown, NW SE Sec. 16-6-19	S.D. 1,542 ft.

NOBLE COUNTY

Wentz Oil's No. 1 Wolff, C SE NW Sec. 17-20-2w	Drlg. 3,082 ft.

OKLAHOMA COUNTY

Sinclair Prairie's No. 1 Kennedy, C SE NW Sec. 4-13-1w	Spudding.
Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w	S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w	S.D. 5,515 ft.

OSAGE COUNTY

Mohawk Oil Co.'s No. 1, NE cor. Sec. 10-26-9	1,575-1,633 ft.; 15 bbls. pumping.

PAWNEE COUNTY

Rookstool's No. 1 Wylie, NW NE SW Sec. 6-20-5	S.D. 1,950 ft.

PITTSBURG COUNTY

Tate Oil Co.'s No. 1 Fulton, SE cor. Sec. 34-7-14	Drlg. 2,835 ft.
Nelson & Flynn's No. 1 Anderson, NE SW Sec. 12-7-13	Drlg. 620 ft.
J. Morrison's No. 1 Fowler, NE SE Sec. 13-7-17	Rig.
C. Kennedy's No. 1 Travis, C SW NE Sec. 15-7-14	Rig.
Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14	S.D. 1,620 ft.

PONTOTOC COUNTY

Williams' No. 1 Krath, NE SE Sec. 33-3-4	Location.
Edna Marie's No. 1 McWhirt, NE SE Sec. 11-2-6	S.D. 570 ft.
Vanderslice's No. 1 Meredith, NE SW Sec. 17-2-4	Show oil 295-368 ft.; 6 bbls. est.; S.D.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8	Drlg. 1,365 ft.

POTTAWATOMIE COUNTY

Brown et al's No. 1 Sauter, NW cor. Sec. 35-11-4	Digging cellar.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 23-12-24w	S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w	S.D. 3,420 ft.

SEMINOLE COUNTY

Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8	Drlg. 505 ft.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 23-9-17w	Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w	Show oil 2,459-67 ft.; S.D. 2,757 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18	S.D. 2,002 ft.

Oklahoma Panhandle

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW Sec. 11-1-1E	T.D. 4,720 ft.; to cement.

Southern Oklahoma

ATOKA COUNTY

Morris et al's No. 1 Ray, NE NW NE Sec. 8-2S-12	Drlg. 600 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 18-3s-10	S.D. 2,345 ft.

BRYAN COUNTY

Hughes' No. 1 Ayres, NE SW Sec. 30-7S-7	Drlg. 610 ft.

CARTER COUNTY

Russell's No. 1 Ratliff, NW NE NW SW Sec. 19-1s-2w	Drlg. 1,659-70 ft.; show oil.

JEFFERSON COUNTY

Smith's No. 1 McCarty, SE NW NE Sec. 18-4s-8w	Location abnd.

MARSHALL COUNTY

J. T. Hogan's No. 1 Thompson, NE NW NE, Sec. 36-7s-6	Location.
Thrailkill et al's No. 1 Spence, NE NW Sec. 10-7s-6	T.D. 917 ft.; S.D.

McCURTAIN COUNTY

Prassell et al's No. 1 Wagoner, SE NE Sec. 5-8s-27	Show oil 560 ft.; 620 ft.; drlg. 830 ft.
Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25	S.D. 2,778 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18	S.D. 1,950 ft.

STEPHENS COUNTY

Gillette Bros.' No. 1 Cooley, NW SE NW Sec. 17-2s-3w	Rig.
George's No. 1 Ryan, NW SW NE Sec. 31-3-15	S.D. 510 ft.

California Oil Field Operations for June, 1932

According to figures collected by the American Petroleum Institute, Pacific Coast office, the total production of crude oil in California for June amounted to 14,118,970 bbls., an average of 470,632 bbls. per day. This is a decrease of 31,811 bbls. per day under May production.

Total stocks of crude and all products in Pacific Coast territory decreased during the month 2,316,903 bbls. The total stocks at the end of the month were 169,432,058 bbls. The total stock decrease for 1932, up to June 30, was 403,891 bbls.

CRUDE PETROLEUM PRODUCTION

(Figures of production and stocks are in barrels of 42 gallons)

	Barrels	Daily average		
Group No. 1:	per month	June, 1932	May, 1932	June, 1931
Coalinga	316,315	10,544	10,588	8,620
Elk Hills	363,809	12,127	12,756	13,629
Fruitvale	124,030	4,134	4,402	2,281
Kern River	276,444	9,215	9,687	10,580
Kettleman Hills—North Dome	1,798,545	59,951	58,746	58,355
Kettleman Hills—Middle Dome	.....	.....	124	.....
Lost Hills-Belridge	266,190	8,873	8,942	9,850
McKittrick	54,455	1,815	1,756	1,896
Midway-Sunset	1,479,329	49,311	49,869	50,778
Mount Poso	237,008	7,900	7,795	8,457
Round Mountain	100,343	3,345	4,111	343
Wheeler Ridge	15,340	511	535	522
Group No. 2:				
Elwood	418,696	13,957	15,959	29,081
Rincon	42,793	1,426	1,699	1,893
San Miguelito	8,287	276	453	.....
Santa Barbara	10,378	346	275	160
Santa Maria	87,129	2,904	3,488	3,171
Summerland	3,333	111	111	164
Ventura Avenue	842,313	28,110	30,207	41,446
Ventura-Newhall	107,242	3,575	3,613	3,758
Watsonville	1,825	61	63	62
Group No. 3:				
Coyote	298,165	9,939	10,060	9,997
Domingues	452,915	15,097	23,626	11,341
Fullerton (Brea Olinda)	247,908	8,263	8,014	9,729
Huntington Beach	622,300	20,743	22,289	20,562
Inglewood	406,005	13,534	13,690	14,207
Lawndale	10,794	360	316	464
Long Beach	2,170,852	72,362	80,303	79,956
Los Angeles-Salt Lake	32,900	1,097	1,116	1,304
Montebello	190,111	6,337	6,504	6,624
Newport	.....	.....	.....	6
Playa Del Rey	465,171	15,506	17,533	26,682
Potrero	10,833	361	495	1,331
Richfield	190,715	6,357	6,115	6,859
Rosecrans	88,460	2,949	2,973	3,490
Santa Fe Springs	1,787,456	59,582	63,800	65,465
Seal Beach	372,809	12,427	12,962	11,217
Torrance	183,005	6,100	6,369	5,751
Whittier	33,767	1,126	1,099	1,350
Total June	14,118,970	470,632	502,443	521,381
Total May	15,575,741	502,443	.....	.....
Decrease	1,456,771	31,811	.....	.....

TOTAL STOCKS HELD BY CALIFORNIA OIL COMPANIES, BOTH INSIDE AND OUTSIDE THE UNITED STATES

	June 30, 1932	May 31, 1932	June stock decreases	June 30, 1931
Heavy crude and all grades of fuel, gas and Diesel oils	100,053,802	98,859,851	*1,193,951	101,382,809
Refinable crude	40,836,891	42,621,571	1,784,680	43,852,913
Finished gasoline, engine distillate and natural gasoline	16,554,338	17,912,003	1,357,665	16,059,054
Crude gasoline and naphtha distillates	4,745,948	4,776,867	30,919	2,998,807
All other stocks	†7,241,079	‡7,578,669	337,590	§9,654,154
Total all stocks	169,432,058	171,748,961	2,316,903	173,947,737

*Increase. Barrels of coke included †662,720 ‡662,837 §685,777

OIL FIELD DEVELOPMENT

	New rigs up	Active drilling	Producers completed	Daily initial output	Active producing	Abnd. wells: Drillers	Abnd. wells: Producers
Group No. 1:							
Coalinga	...	...	...	.....	612	..	..
Elk Hills	...	...	...	.....	189	..	1
Fruitvale	6	6	5	2,596	35	..	..
Kern River	...	...	...	.....	934	..	1
Kettleman North Dome	1	11	2	8,311	24	1	..
Kettleman Middle Dome	...	2	...	.....	.....	..	..
Lost Hills-Belridge	...	1	1	2,500	156	..	..
McKittrick	1	3	...	.....	106	..	..
Midway-Sunset	1	...	1	225	1,823	..	1
Mount Poso	1	1	...	.....	86	2	..
Round Mountain	...	...	1	185	17	..	..
Wheeler Ridge	...	...	...	.....	34	..	..
Group No. 2:							
Elwood	...	...	2	1,059	34	..	..
Rincon	...	...	...	.....	33	..	..
San Miguelito	...	1	...	.....	1	..	..
Santa Barbara	...	1	...	.....	4	..	..
Santa Maria	...	2	...	.....	170	..	..
Summerland	...	...	...	.....	60	..	..
Ventura Avenue	...	6	...	.....	125	..	..
Ventura-Newhall	1	5	...	.....	421	3	..
Watsonville	...	...	...	.....	6	..	..
Group No. 3:							
Coyote	...	...	...	.....	152	..	1
Domingues	...	2	1	515	49	..	..
Fullerton	...	1	...	.....	351	..	..
Huntington Beach	...	1	...	.....	367	..	2
Inglewood	1	2	...	.....	213	..	..
Lawndale	...	...	...	.....	6	..	..
Long Beach	1	4	2	195	953	6	5
Los Angeles-Salt Lake	...	...	...	.....	252	..	11
Montebello	...	...	...	.....	170	..	..
Newport	...	...	...	.....	.....	..	..
Playa Del Rey	...	2	...	.....	180	..	1
Potrero	...	3	...	.....	10	..	1
Richfield	...	...	...	.....	155	..	2
Rosecrans	...	1	...	.....	64	..	1
Santa Fe Springs	...	...	...	.....	487	..	..
Seal Beach	...	1	...	.....	105	..	1
Torrance	...	...	...	.....	374	..	..
Whittier	...	...	...	.....	153	..	..
Miscellaneous drilling	1	49	..	.....	.....	12	..
Group No. 4:							
Buttonwillow gas field	2	1	2	gas	1	..	..
Dudley Ridge gas field	...	2	...	.....	.....	..	..
Total June	16	108	17	15,586	8,912	24	29
Total May	17	120	11	4,113	9,066	11	6
Decrease	1	12	*6	*11,473	154	*13	*23
Average for year 1931	22	207	21	30,370	8,911	20	15
Average for year 1930	80	434	63	48,710	9,632	21	27
Average for year 1929	109	610	76	100,625	10,550	26	18

*Increase.

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Wildcat Completion in Central Western Kansas Largest Kansas City Lime Well in State

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

Kansas daily production declines notwithstanding the efforts of the Kansas Public Service Commission to bring about a greater demand for Kansas crude oil. The State shows an average of approximately 93,450 bbls. a day for the week ending August 6, which is a decline of 2,400 bbls. daily from the previous week. A production test of a wildcat well recently completed shows it to be the largest Kansas City lime well ever completed in the central western part of the State. Winfield townsite is now one of the active areas in the State, more than 20 operations being under way.

Formal demand was made during the week on six purchasers of crude oil to report to the Kansas Public Service Commission, on August 15, the amount of crude they expect to take from storage during the next 30 days. On September 15, the purchasers must report their withdrawals for the period and at the same time submit estimates on expected withdrawals for the next 30 days. Companies served with notices include the Gulf Pipe Line Co., Oklahoma Pipe Line Co., Sinclair Prairie Pipe Line Co., Stanolind Pipe Line Co., and the Texas Pipe Line Co.

Drilling Winfield Townsite

The development of the Winfield Townsite continues at a rapid rate. More than 20 tests are being drilled on the townsite and two locations were made during the week.

Slocum and others' No. 1 Baker in Section 27-32-4, Cowley County, found the shallow sand at 2,342-46 feet, where the oil rose 1,000 feet in the hole. This test is in the vicinity of other shallow sand producers.

Two locations were made in the townsite, both by S. A. Murphy and others. One will be No. 2 Reservoir Hill, in the southern part of the city-owned Reservoir Hill tract, which is large enough for three tests. The other location was made on city-owned property, Observatory Hill Park. The location was made on the peak of the hill. It is known as No. 1 Observatory Hill, and offsets a producer from the shallow sand.

Tests under development in the Winfield Townsite include: G. P. Dickey's No. 1 Tibbetts, which is fishing for a bailer. Davis and others' No. 1 Holt is digging cellar. Roth and Farout's No. 6 Moncrief was landing casing at approximately 2,360 feet. Deal Oil & Gas Co.'s No. 1 Cloud is drilling at 400 feet. Same operator's No. 4 Southwestern Camps is skidding rig. Hinkel and others' No. 1 Investment is drilling at 2,745 feet. Deal Oil & Gas Co.'s No. 1 Covalt is a location. S. A. Murphy's No. 1 Orchard is landing casing at 2,700 feet. Dickey and others' No. 1 Tibbetts is fishing lost bailer. S. A. Murphy and others' No. 1 Reservoir Hill is cleaning out. Deal Oil & Gas Co.'s No. 1 St. John is drilling at 1,800 feet. Dickey and others' No. 1 Smiley is cementing the cellar. Shawver and others' No. 1 Snyder is underreaming casing, total depth 1,690 feet. Spencer and others' No. 1 Galyon is preparing to pump. Wakefield and others' No. 1 Dungey is at 600 feet. J. N. Cole and others' No. 1 Hepler is drilling at 2,450 feet. Deal Oil & Gas Co.'s No. 1 Hott is a location. Patton and others' No. 1 Howe is drilling at 150 feet. Stover and others' No. 1 Green is a location. Lehman and others' No. 1 Bevis is digging cellar.

Stratman Pool

Another wildcat test is being drilled with hopes of extending the production in the Stratman Pool, in Ellsworth County. George W. Hinkle and R. Gear and others' No. 1 Sauberli, C SW SE, Section 29-16-9w, was drilling at 1,800 feet on the last reports. The well spudded some weeks ago and was shut down for some time. It is expected to be completed as soon as possible. The location is considered to be favorable from a geological standpoint. A seismograph was used to locate the structure. Other companies owning adjoining acreage include the Carter Oil Co., Magnolia Petroleum Co., Atlantic Oil Producing Co., Skelly Oil Co., Sinclair Prairie Oil Co. and Shell Petroleum Corp.

O. V. Paul and others' No. 1 Bryden, NW cor. SW, Section 31-25-9, Greenwood County, is a new location. This test is an offset to a 600-bbl. well completed several years ago. It is about 2 miles northeast of the old Sallyards Pool. Production is expected in the Bartlesville sand, but the test may be carried to the Mississippi lime.

Barton County Wildcat

Rush Petroleum Co. and others' No. 1 Ott, C SE SE, Section 16-19-14w, Barton County wildcat, has been fishing for a bailer after removing an old string of 5-inch casing from the hole. A new string of 5-inch casing will be landed at a total depth of 3,600 feet in a few days. The company planned to abandon this hole last June and the drillers decided to make a few feet of hole before starting to pull the pipe and abandon. Less than 10 feet of hole was made before they found a showing of oil. If it is found to be impossible to fish out the bailer it will be drilled up.

Largest Kansas City Producer

The largest well ever completed in the central western part of the State yielding its production from the Kansas City-Lansing lime is estimated at 100 bbls. an hour. Slick, Pryor & Lockhart's No. 1 Breford, in Section 7-17-10w, Ellsworth County, a wildcat well 6 miles from production, averaged 72 bbls. an hour on a pumping test of 10 hours. It is believed the well would have been good for at least 100 bbls. an hour if the gas pressure had not interfered. The Kansas City-Lansing lime was found at 3,140-52 feet. It is the only gusher well in this formation yet found in the State. It is now shut in for a market outlet.

McPherson County

McPherson County oil development continues at a steady rate. In the northeast part of the Ritz-Canton Field, the Darby Petroleum Corp. and others' No. 1 Fletcher, SW cor., Section 16-19-1w, was drilled into the Viola lime a few feet a few days ago, and was then shut in. It will be drilled deeper to the lower pay horizon from which the offset well found its production.

Vernon Oil & Gas Co.'s No. 3 well, SW cor. NE, Section 35-19-2w, on the west side of the Ritz-Canton Field, in McPherson County, found the top of the chat at 2,918 feet, where it was showing gas. This test is the north offset to Dickey Oil Co.'s No. 4, which made 14,326 bbls. of oil in 24 hours, the largest well completed in the Ritz-Canton Field.

A new location was announced in the south extension area of the Voshell Field in McPherson County, H. C. Detrick and others' No. 1 Neufeldt, NW cor. NE NE, Section 21-21-3w. This area now has seven locations and three chat producers that extended the producing area of the Voshell Pool more than a mile to the south.

Another Viola lime well was in prospect in the northeast part of the Ritz-Canton Field, in McPherson County. It was an old chat gas well drilled deeper. The well is Darby Oil Co.'s No. 1 Kaegi, NE cor., Section 20-19-1w. It was this well that first discovered the gas in the chat formation in this part of the Ritz-Canton Field. The top of the Viola lime was found at 3,367 feet. It is somewhat lower than the same horizon was found in the east offset, but about the same depth as Carter Oil Co.'s No. 1 Lagree, a new 1,050-bbl. well nearby. Rotary tools were used to deepen the No. 1 Kaegi.

Shell Petroleum Corp.'s No. 3 Johnson, NE cor. NW, Section 35-19-3w, in the Johnson Pool, McPherson Pool, is rated at 200 bbls. a day from the chat at 2,970-3,030 feet.

Sedgwick County

W. Schweiter's No. 2 fee, in Section 27-27-1, Sedgwick County, on the southeast edge of Wichita, is rated at 2,000,000 feet of gas a day from a total depth of 1,490 feet. It is the second well to be drilled on this acreage, the first was drilled to a total depth of 3,404 feet and then plugged back to the shallow formation.

Gypsy Oil Co.'s No. 2 Williams, SW cor. SE NW, Section 16-35-3w, Sumner County, found the Wilcox sand at 4,847-

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Smith et al's No. 1 Wilson, C NW SW Sec. 13-18-14w	Rig.
Midwest Ref. Co.'s No. 7 Scheufler, C SW SE Sec. 9-20-11w	Drlg. 3,305-24 ft.; swabbed 27 bbls. in hr. for 18 hrs.
Skelton Oil Co.'s No. 1 Ott, C SE SE Sec. 16-19-14w	Set liner 3,530-46 ft.; show oil; C.O. 3,604 ft.

BUTLER COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Lardson, C SE NW Sec. 13-28-2	S.D. 1,480 ft.
Ramsey's No. 1 Michael, SW NW NW Sec. 18-27-3	S.D. 1,985 ft.

CHASE COUNTY

Ryan et al's No. 1 Lipp, C SE Sec. 35-18-6	S.D. 625 ft.

DOUGLASS COUNTY

Pure Oil Co.'s No. 1 Limb, NW SE Sec. 31-14-19	Spudding.

EDWARDS COUNTY

Mid-Kansas O. & G. Co.'s No. 1 Converse, SW NE NE Sec. 36-24-18w	U.R. 8-in. csg. 4,160 ft.

ELLSWORTH COUNTY

Gurley Bros. and Barnsdall's No. 1 Union Pacific, NW SW Sec. 7-14-7w	Location.
Morgan's No. 1 Andrews, NE SW Sec. 3-17-8w	Spudded; S.D.
Walker et al's No. 1 Remley, SW SE NE Sec. 22-14-7w	Drlg. 1,460 ft.
Slick et al's No. 1 Dreford, SW NW Sec. 7-17-10w	Drlg. 3,140-50 ft.; 270 bbls.; shut in.
R. Gear et al's No. 1 Kroboth, SE NW Sec. 12-15-10w	S.D. 50 ft.
R. Gear et al's No. 1 Sanberth, C SW SE Sec. 29-16-9w	Drlg. 770 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w	Rig.

HARVEY COUNTY

D. R. Louck's No. 1 Regier, SW SE NW Sec. 9-22-3w	Wilcox 3,787-3,804 ft.; wtr., abnd.
Liggett et al's No. 1 Davis, SW SE NE Sec. 7-24-1	Drlg. 3,105 ft.
Herndon, Blair, Deep Rock, No. 1 Santa Fe, C NW Sec. 19-23-1	Rig on ground.

HASKELL COUNTY

Victor Martin et al's No. 1 Martin, C NW Sec. 6-28-31w	Rig.

FINNEY COUNTY

National Ref. Co.'s No. 1 Wells, C SW Sec. 13-23-30w	Drlg. 5,440 ft.

FORD COUNTY

Swain et al's No. 1 Henthorn, C NW Sec. 21-25-24w	S.D. 5,205 ft.

KINGMAN COUNTY

Panhandle Drlg. Co.'s No. 1 Wetheral, C SE NW SW, Sec. 20-28-10w	Set 12-in. csg. 1,610 ft.; S.D.

McPHERSON COUNTY

Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-3w	S.D. 1,525 ft.
Detrick's No. 1 Dalke, NW SE Sec. 16-19-1	S.D. 1,255 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 28-17-1w	S.D. 580 ft.
Simmons-Canary's No. 1 Krehbiel, SE NW Sec. 33-18-1w	Drlg. 3,226 ft.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE Sec. 22, 34-43w	T.D. 3,640 ft.; temp. abd.

MORRIS COUNTY

Urschel et al's No. 1 Bersuch, NW SE NW Sec. 10-17-7	S.D. 915 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w	Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW Sec. 21-14-15	S.O. 2,190-2,200 ft.; temp. abnd.

PRATT COUNTY

Ninnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 28-27-11w	Drlg. 1,395 ft.

RENO COUNTY

National Union's No. 1 Hill, NE SE Sec. 18-24-4w	Location.
Martin et al's No. 1 Yadu, C NW NW Sec. 15-24-5w	S.D. 318 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w	Rig.
Slick et al's No. 1 Arth, SE NE Sec. 27-18-10w	Drlg. 3,241-43 ft.; show oil; W.O.C.S.; made 915 bbls. 10 hrs.
J. Liggett et al's No. 1 Thodel, C NW NW Sec. 11-21-7w	S.D. 50 ft.

RUSSELL COUNTY

J. Brennan's No. 1 Waly, CNL E½ NW Sec. 29-13-11w	Rig aband.

RUSH COUNTY

Barnsdall's No. 1 Schultz, SW cor. Sec. 3-19-16w	Rig.
Skelton et al's No. 1 Brock-Hartman, SW SE NE Sec. 4-18-16w	S.D. 50 ft.

SALINE COUNTY

Twin Mounds Oil Co.'s No. 1 Wells, C W½ NE NW Sec. 26-13-4w	Drlg. 3,475 ft.

SEDGWICK COUNTY

Scroggins et al's No. 1 Bartlett, NW SE NW Sec. 35-27-1	Drlg. 612 ft.

SHERIDAN COUNTY

Flo et al's No. 1 Shoemaker, SE SW Sec. 27-7-26w	H.F.W. 4,535-45 ft.; S.D.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE Sec. 10-33-39w	S.D. 5,521 ft.;

SUMNER COUNTY

Austin et al's No. 1 Fog, SW SE SE Sec. 14-34-1w	Rig.
Trees Oil Co.'s No. 1 Tompkins, SW Sec. 26-33-1	Location.
Trees Oil Co. and Shell's No. 1 Springate, NE SE SW Sec. 6-34-2	S.D. 3,639 ft.

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49 feet, where water rose 1,800 feet in the hole. It will probably be abandoned. The test is northeast of the discovery well in the State Line Pool, where oil production was found in the Wilcox sand on both sides of the state line, in Kansas and in Oklahoma.

Olson Drilling Co. and others' No. 1 in the SW cor., Section 24-23-4w, Reno County, made 465 bbls. of oil in 18 hours from the chat at 3,262-3,374 feet.

Butler County

Richards and others' No. 1 Thompson, NE cor. NW SW Section 2-24-3, is a rig on the ground.

Cowley County

Murphy and others' No. 1 Observatory Hill, NW cor. SW NE Section 27-32-4, is digging cellar. Same operators' No. 2 Reservoir, SE cor. NW NW NE Section 27-32-4, is digging cellar. Swedish-American Oil Co.'s No. 1 Sandstrom, SW cor. NE NW Section 24-33-6, an old well drilled deeper, total depth 2,776, will test. Murphy and others' No. 1 Orchard, SE cor. SW SE Section 22-32-4, was abandoned at 2,728 feet. Jayner and others' Dugeon, SE cor. NE SE Section 32-31-5, was abandoned at 699 feet.

Ellsworth County

Derby Oil Co. and Alladin Oil Co.'s No. 1 Stoltenberg, NE cor. SE SE Section 21-16-10w, is a location. Phillips Petroleum Co.'s No. 1 Hochman, NE cor. NW SE Section 17-16-7w, is a location.

Greenwood County

Lewis and others' No. 1 Cook, C SW NW NW Section 15-24-10, is a rig. Frazier and others' No. 1 Smith, NE cor. NW SW Section 8-24-12, is a location. Landon and others' No. 3 Smith, SW cor NW NW Section 8-24-12, is a location. B. Young and others' No. 1 Myers, NE cor. SE Section 10-24-12, made 40 bbls. after a 60-quart shot at 1,783-1,808 feet. Gore and Phillips Petroleum Co.'s No. 6 Beal, C SE NE Section 28-23-11, was completed for 75 bbls. from 1,887-1,955 feet, after shooting with 180 quarts. Harwood and others' No. 5 Carson, CSL NE NW Section 33-23-11, made 90 bbls. from sand at 1,964-85 feet, after an 80-quart shot. Moore & Ellis' No. 1 Berry, NW cor. SW NW Section 26-23-13, made 40 bbls. from sand at 1,763-69 feet, after a 40-quart shot. Aikman-Braden's No. 5 Pavemire, SE cor. Section 15-22-13, was completed for 5 bbls. a day from 1,834-38 feet after a 40-quart shot.

Harvey County

Frost & Study and others' No. 1 Martins, C NE SE SE Section 19-22-3w, is a rig. Hollow and others' No. 1 School Land, NE cor. SE Section 19-22-3w, is a rig.

Rice County

Rogers and others' No. 1 Rainey, NE cor. SW Section 3-21-6w, is a rig.

Sedgwick County

Rosenthal and others' No. 11 Green, C S half N half SW SW Section 15-25-1, made 90 bbls. in 12 hours from sand at 2,622-26 feet. Continental Oil Co.'s No. 1 Rosch, NW cor. NE SE SE Section 16-25-1, made 327 bbls. in 12 hours from 3,346-51 feet.

McPherson County

Dietrick and others' No. 1 Neufeldt, NW cor. NE NE Section 21-21-3w, is a location, McPherson Oil & Gas Co. and others' No. 3 Lovett, C SE NW Section 13-19-2w, is a location. Broswood Oil Co.'s No. 1 Griffin, C NW SW Section 14-19-2w, an old well drilled deeper, total depth 2,925 feet, was rigging up. Same company's No. 2 Giffin, C SW SW Section 14-19-2w, an old well drilled deeper, total depth 2,961 feet, was rigging up. Lario Oil & Gas Co. and others' No. 1 Hill, SE cor. Section 23-19-2w, is a rig. Youker and others' No. 3 Grattan, SW cor. Section 24-19-2w, is a rig. Harris & Haun's No. 1 Overman, NW cor. NE SE Section 20-19-1w, made 1,062 bbls. from 3,395-3,412 feet.

Increase of Wildcat Drilling in Eastern Fields; New Test in Clearfield County, Penna.

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Aug. 8.—Probably in preparation for the return swing of the pendulum to a normal demand for gas and oil, and undoubtedly influenced by the success of the Tioga gas fields, where a half billion feet a day is the potential awaiting completions of lines to markets, there is more drilling outside of production, real wildcats, than for some years. The latest development is the start of a test in Clearfield County, where the Plymouth Oil Co. is testing the John E. DuBois farm in Green Glen Woods, Sandy Township. The tools have reached a depth of 650 feet and at 475 feet there was a good supply of water. This location is away off production and lies on the west flank of the Driftwood anticline. The hole will be drilled to 3,000 feet or more.

In Virginia no new production has been found although some of the wells have reached a fair depth. In Scott County, Davis Elkins' second test on the Smith farm east of Gate City has reached about 5,100 feet. In Buchanan County the same operators' test is drilling at about 4,815 feet. In Russell County the Benedum & Trees test on the Clinchfield Coal Co. tract is drilling at 1,416 feet. In Wise County, on the waters of Guest River in Charleston district, their test on the I. Kauffman farm is down 1,420 feet. The same operators have a wildcat drilling on the Pocohontas Coal Co. property in Big Creek district, McDowell County, lower West Virginia, and the depth is now 3,215 feet. In Washington district, Washington County, Virginia, Beahm and others are still shut down testing their casing on the J. M. Arnold farm, which had reached 2,440 feet.

Three completions and a dry hole in Southeast Ohio, and four completions in West Virginia was the total of the work in the eastern fields during the past week. One of the producers was a fair test and was slightly away from production in Southeast Ohio.

SOUTHEAST OHIO

The best well for the week in the East was the test of the Preston Oil Co. on the Davis S. Snyder farm in Newcastle Township, Coshocton County. It was drilled in the Clinton sand to a depth of 3,305 feet and produced 13 bbls. natural the first 24 hours and then, shot, made 65 bbls. the next day.

Another smaller though fair well was No. 3 of the Reno Oil Co. on the D. F. Pipes farm in Section 15, Richland Township, Holmes County. It is a Clinton sand producer at a depth of 3,160 feet, and after shot the fluid level in the hole was about 1,000 feet. It is showing for a 10-bbl. pumper and is being rigged up for pumping.

In Perry County the Allegheny Oil Co. continued its operations with No. 25 on the Thomas and Mary Monahan farm in Section 33, Pleasant Township. It made 2 bbls. natural the first day which was increased to 5 bbls. after shot from the Berea sand at a depth of 1,092 feet. Near Hibbardsville, in Section 35, Alexander Township, Athens County, the Townsend Oil & Gas Co. drilled a test on the C. P. Riley farm through the Cow Run sand, which was found at 150 feet. It was a dry hole.

Washington County

Interest in southeastern Washington County, Ohio, is revived with the start of deeper drilling in the Eugene E. Grimm and others, which includes the Penn Ohio Gas Co., a Benedum & Trees interest, test on the E. E. Knowlton farm in NW Section 10, Independence Township. From a fresh start at 3,458 feet with heavier equipment, the hole is now 3,605 feet deep and is intended to be drilled 2,000 feet deeper. The Crago well still continues to be a fair producer at a depth of around 3,985 feet and the peculiar part of the many, nine in all, tests which have been drilled in various directions, none has encountered the same formation from a close comparison of sand samples. All other wells are shut down awaiting the Knowlton result.

WEST VIRGINIA

The West Virginia fields continue quiet unmarked by any large producers and but few gas wells being brought in. One producer was completed during the past week. It was the second test of the Mary Osborn Oil Co. on the M. R. Osborn farm on the waters of Leather Bark Creek in Murphy district, Ritchie County. It was completed in the Injun sand at a depth of 2,060 feet and is showing for a 4-bbl. producer.

Gas Wells

The best gas well for the week was the test of the Standard Ultramarine Co. on its own tract in Guyandotte district, Cabell County. It was completed at 2,975 feet in the Berea sand and is rated good for 500,000 feet a day.

In Calhoun County the Conservation Oil & Gas Co. completed a second test on the James Kerby farm in Sheridan district, which was drilled in the Injun sand to a depth of 2,173 feet. It will make a small gas well. In Roane County, K. M. Hunt and others drilled their old test on the J. A. Eppling farm to deeper sands. It was completed in the Injun sand at 1,880 feet and will also make a small gas well.

Drilling in West Virginia

Drilling in Cabell County is fairly active. C. C. Wolfe is spudding in on the T. H. Freeman farm in Guyandotte district. In the same district, this operator is ready to complete his test on the J. F. Weatherington farm at 2,956 feet, and has No. 4 drilling at 2,066 feet on the Ben Lomond Land Co. tract. In this district, the Guyan Valley Gas Co. is spudding in and starting drilling on the Chesapeake & Ohio R. R. Co. land, and the Midway City Gas Co. has made a location on the O. C. Morrow farm. Phillip Hager and others have made a location on the State Hospital grounds. In Barboursville district, the Merrits Creek Gas Co. is spudding in for a second well on the Ohio River Land Co. tract and is fishing at 75 feet. These operators are also rigging up for No. 3 on the Hans-Watts Realty Co. property. In McComas district, the Empire State Gas Co. is down 340 feet on the C. C. McCoy farm.

In Ritchie County R. L. Rinehart is rigging up on the John E. Markey farm in Grant district, and in this section, John Roberts has made a location on the William Jenkins farm. In the same district, E. E. Pickens has reached 1,695 feet on the William McTaggart farm, and the Reno Oil Co. has spudded in and started drilling a second test on the A. Matheny farm. In this district, W. H. Hammett is shut down at 1,350 feet on the George and Mary Jarvis farm, as is R. C. Jackson at 1,620 feet on the Rutherford heirs farm. In Clay district, Ross Richards and others are fishing for the tools at 1,275 feet on the L. E. Robinson farm.

In Roane County the Henderson Oil Co. is fishing for tools on the F. L. Ball farm in Curtis district at a depth of 1,265 feet. The Big Four Drilling Co. is progressing in its test on the H. C. Cottle farm, same district, having reached 1,743 feet. In the same district Snyder Brothers and others are cementing at 1,090 feet on the C. and C. Guthrie farm. The United Fuel Gas Co. is still pulling casing and plugging in its deep test on the J. W. Hinzman farm in Curtis district in which the tools were lost at 9,101 feet. In Smithfield district, Bowers and Jackson have completed their rig for a test on the Smith and Chewning farm.

In Hancock County James Crago is drilling No. 5 on the George R., Charles and James Crago lease in Clay district and have reached 2,340 feet. In Mingo County the Virginian Gasoline & Oil Corp. has No. 24 drilling on the Henry Closterman farm in Harvey district. In Jackson County H. H. Sheppard and others are drilling at 680 feet on the T. C. Burdette farm in Washington district.

In Wayne County, the Southern West Virginia Gas Co. has resumed drilling in its test on the A. W. Preston farm in Union district and is now at 1,050 feet. In Wetzel County, Null and Moorehead are building a rig for No. 4 on the W. G. Snodgrass farm in Church district. In Marion County, Monroe and Laughlin have been slowed down with a fishing job at 2,800 feet in their second test on the D. V. Liming farm in Mannington district. In the same district, J. J. Allen and others have completed a road to a location on the James A. Haught farm.

In Grant district, Monongalia County, the Pennsylvania Counties Gas Co. has reached the sand in its test on the J. L. Jamison farm and is testing the gas. In Lincoln County the Vernon Gas Co. is cleaning out its No. 3 on the Roy and Hal Adkins farm in Union district after having shot it at a depth of 2,387 feet.

SOUTHWEST PENNSYLVANIA

Again there were no completions for a week in Southwest Pennsylvania. There are slightly more wells drilling, the closest to completion being the Carnegie Natural Gas Co.'s test on the F. Dickinson farm in South Franklin Township, which has reached 2,718 feet. In this township the Martin Oil & Gas Co. has reached 500 feet on the Hiram McClain farm. Bromley and Bungard have spudded in and started drilling on the J. D. Clark farm in this township. In Amwell Township, the scene of a late fair test, Raymond Orrill & Co. are making fair progress with their second test on the G. L. Walker farm, having reached 500 feet. In Hanover Township, Rendall & Co. has an unreported test on the William Arnold farm, which has reached 990 feet. All of the above-mentioned are in Washington County. In Greene County few wells of any significance are drilling, both on account of the depth and the undesirability of producing any more gas at present.

J. A. BENNETT KILLED

CHATHAM, Ontario, Aug. 7.—Word has been received in Petrolia, Ontario, that Jack A. Bennett, well known in United States and Canadian drilling circles, was killed recently by lightning in Arizona. Born at Petrolia in 1874, Mr. Bennett at 20 drilled for an Amsterdam syndicate in Sumatra, and later for the Shell Transport & Trading Co. in Borneo. In 1899 he went to Bakersfield, next year drilling Sunset Coast's No. 1 in the famous Section 25 in the Kern River Field. He was later in British Burmah and in the Cobalt mining area, returning to Bakersfield in 1906.

PIPE LINE IN CHILE

The Chilean government has authorized construction of an oil pipe line by the Oriental Co. of Bolivia, it was announced.

The company said the project would provide jobs for 10,000 laborers. The line will leave Bolivia between Santa Cruz and the Argentine frontier at Yacuiba, crossing Chilean territory for an outlet at Iquique or Antofagasta. Chile will have the right to buy oil at 10 per cent under the market.

Umpire Making Headway Towards Curtailment; New Completion in Potrero Is a Surprise

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Aug. 6.—Although the state's production of crude oil has been below the maximum economic allowable since June 26, when major companies increased the posted price, a number of fields have consistently exceeded their respective allotments during the period. Umpire Pemberton appears to be making definite headway in effecting the additional curtailment necessary to bring all fields into line, but there are still a number of weak spots. Fields which require concentrated effort include Huntington Beach, Long Beach, West Coalinga and a few other areas where small excesses still exist. The Kettleman North Dome Field has been a little out of line during the past 10 days but this is more or less temporary and is attributed to the fact that operators are making up underages in production which occurred early in July. Completion of No. 1 Elsinore by the North American Consolidated has also been a factor contributing to the excess production, as completion of this well will necessitate a revision in the allocation of production. Production in the Kettleman North Dome Field has been consistently kept below the pegged allowable of 60,000 bbls. per day for several months.

California's potential production of crude oil was increased 3,000 bbls. per day on August 1, and while a number of adjustments were made in both the potentials and allotments of several fields, the state's allowable showed only a minor change. Potential production for August was set at 1,017,500 bbls. per day and the monthly allotment reduced from 476,200 bbls. per day to 475,600 bbls. Reductions in potential production were effected at Midway-Sunset, Long Beach, Santa Fe Springs and West Coyote. The daily potential in these fields was reduced 350 bbls., 780 bbls., 2,250 bbls. and 425 bbls. respectively. Increased potentials were assigned Elwood, Ventura Avenue, Huntington Beach, Playa Del Rey and Seal Beach. Potential daily production in these fields was increased 654 bbls., 4,870 bbls., 955 bbls., 430 bbls. and 515 bbls. respectively. Changes were made in the potential daily production of practically every field in the State, but, with the exception of those previously enumerated, the revisions were relatively small.

No changes were made in the allowable daily production of fields in either the San Joaquin Valley or the Coastal area, but a number of adjustments were effected in the August allotment for Southern California fields. Increased allowables were given Dominguez and Huntington Beach, the former being allowed to produce 2,500 bbls. per day more than heretofore and the latter 1,000 bbls. more than its previously assigned quota. The largest decreases made in allowable daily production were at Inglewood, where the quota was reduced 450 bbls., Long Beach and Montebello, with a reduction of 500 bbls. each, Playa Del Rey and Santa Fe Springs, with a reduction in allowable production of 1,000 bbls. each, Seal Beach with 300 bbls. and Brea Olinda with 250 bbls. Compared with the previous year, California's potential daily production for August is 170,230 bbls. below the potential for the same month in 1931. The current allotment of the state is 11,900 bbls. per day below similar figures at the same time last year.

Umpire Pemberton Busy

During the latter part of the week Umpire Pemberton discussed conditions existing at Huntington Beach with operators in that field in order to clarify the situation and convince producers of the advisability of curtailing production. As a result of the frank discussion, Umpire Pemberton is believed to have overcome the principal stumbling block which has kept this field out of line for more than a month. There are still a few minor details to straighten out but operators are in accord with respect to the advisability of curtailment and are expected to adjust production to conform with the established allowable. In one or two cases operators may choose to re-establish their rated potential but this practice is not expected to become general, as in most cases operators have accepted the rating given them by the umpire as being fair and equitable. In the Coffee Canyon area, a component part of the Round Mountain Field of Kern County, operators have accepted the existing curtailment program and will abide by instructions. This agreement, reached during the latter part of July, has been productive of satisfactory results and production during the current 10-day period will probably be slightly below the area's allotment. In consideration of the agreement to observe curtailment, operators in the Coffee Canyon, or North Round Mountain area, have been assured of an outlet for current production as long as the curtailment program is observed. Major companies, at the instigation of the California Oil Producers Sales Agency, agreed to absorb this additional production on the stipulations agreed to between the parties involved.

Potrero

The Wilshire Annex Oil Co. surprised operators during the past week by completing another well in the Potrero Field of Los Angeles Basin. The Wilshire's new producer is No. 2 on the Potrero Country Club property, brought in flowing 946 bbls. of clean 52.6 gravity oil per day from 4,041 feet. This new producer, approximately 300 feet northwest of the initial completion on this lease, was finished after standing suspended for 60 days. The Wilshire's No. 1, finished a little over a year ago flowing 1,250 bbls. per day, was redrilled and deepened to 5,283 feet after the well stopped flowing, but the failure to find commercial production at this depth has prompted the company to plug back to the upper zone. No. 1 was flowing steadily at the rate of approximately 250 bbls. per day when, in some manner, the producing formation was mudded off by rotary drilling mud from No. 2. After being mudded off, the Wilshire was unable to recomplete No. 1 and the hole was deepened in an effort to develop lower production. The Wilshire Annex Oil Co., a subsidiary of the Wilshire Oil & Refining Co., a large independent operator in Southern California, leased the Potrero Country Club property a little over a year ago after it had been quitclaimed by the Associated Oil Co. The Associated released this property after drilling several wells and failing to find sustained production. The Associated's completions, like those of the Wilshire, registered satisfactory initial production, but failed to hold up. A number of wells in the town lot area northwest of the older section showed similar characteristics with the result that a number of holes were drilled before operators realized they could not anticipate the sustained production necessary to liquidate drilling costs. Several zones were opened in the northwest town lot area and, while practically all yielded wells showing large initials, the limited thickness of oil sand present in each zone prevented consistent production. Because of the high gravity and desirability of this crude from a refining standpoint, a few wells yielded a small profit, but on the whole drilling costs have far exceeded the aggregate value of oil produced in this field. In addition to the limited thickness of oil sand present in each zone, the Potrero Field stands out as one of the few fields in Southern California which did not show a substantial accumulation of gas in conjunction with the oil sand. Because of the small amount of gas and the resulting low pressures, the flowing stage of wells in this field has been relatively short lived.

Playa Del Rey

The Pacific Shore Oil Co. chalked up a fairly good well in the Playa Del Rey Field of Los Angeles Basin early in the week when No. 2 Bellreich-Strain was recompleted doing 341 bbls. of relatively clean 21.9 gravity oil per day. This rejuvenated producer, located at Avenue 49 and Trolleyway, failed to result in a natural flow upon being recompleted in the upper, or Del Rey, zone, and was put on the beam. The hole was originally bottomed at 5,657 feet but was plugged back and redrilled to 4,097 feet because the hole was practically full of junk. The recompletion of this well represents an excellent job as the hole was practically a total loss previous to the reconditioning job. The Pacific Shore Oil Co.'s No. 3 at Avenue 54 and Ocean Front is the largest producer in the Playa Del Rey Field at present. This well, finished in 1930, is still flowing approximately 500 bbls. per day of exceptionally clean oil and has been one of the biggest dividend payers in the field. The well is in the center of an intensely drilled town lot area and in a field where a large majority of producing wells may never show a profit. Unfortunately, Playa Del Rey crude, due to the failure of operators to observe curtailment, brought only 25 and 35 cents per barrel during flush production. This threw a number of Playa Del Rey operators into receivership, a situation which might have been averted by curtailment that would have permitted major companies to absorb current production at a better price.

Long Beach

The Beach Petroleum Co. completed a new well in the Long Beach Field early in the past week when No. 2 Harlow was brought in pumping 132 bbls. of 24.5 gravity oil per day from 4,731 feet. This well, completed in the shallow zone and finished with a 4¾-inch oil string, is cutting approximately 10 per cent. It was given a preliminary production test during the latter part of July but was not officially completed until early in August as the output upon completion was cutting considerably in excess of the maximum established by pipe line companies. Present production meets the requirements of pipe line companies as the water is rather free and can be bled out without dehydration. There are very few incompleted drilling projects under way in the Long Beach Field, although a number of operators are engaged in reconditioning work, which in some cases consists of deepening operations and in others the plugging off of bottom water or the exclusion of edgewater.

Operators in the Santa Fe Springs Field, although not engaged in the drilling of new wells, have been quite active during the past year in the reconditioning of wells which have ceased to be commercially productive. While operators passed up the Bell and Meyer zones during the last deep zone exploitation campaign, many are now returning to the Meyer zone. As a result a number of wells have been plugged back from the Clarke, Hathaway and Nordstrum zones and recompleted in the Meyer horizon. In practically every case recompletions in the Meyer zone have exceeded the last production recorded by the rejuvenated wells in the lower horizons. The Ring Petroleum Co. recently acquired a lease

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	July 23		July 16			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Diesel and gas oil	79,988	10,284	.....	.....	219,058	1,094,502
Gasoline	258,576	36,939	308,720	44,103	4,963,647	8,286,939
Kerosene	.....	.....	.....	.....	154,372	157,589
Foreign exports—						
Crude oil	193,619	26,231	133,762	19,109	4,947,269	4,301,886
Fuel oil	272,653	38,950	56,008	8,001	5,088,822	8,249,150
Diesel and gas oil	33,854	4,836	348	50	1,435,155	2,254,277
Gasoline	195,963	27,995	56,855	8,122	5,245,345	5,385,002
Kerosene	17,184	2,455	86,481	12,354	1,439,301	1,044,210
Lubricants	.....	.....	.....	.....	.....	36,353
Naphtha distillates	.....	.....	.....	.....	120,075	.....
Coastwise-domestic—						
Crude oil	266,714	38,102	257,095	36,728	8,231,668	12,480,175
Fuel oil	252,508	36,073	228,182	32,597	7,095,499	7,603,538
Diesel and gas oil	.....	.....	1,604	229	726,957	895,988
Gasoline	177,093	25,299	188,777	26,968	8,680,064	8,167,997
Kerosene	.....	.....	2,206	315	98,549	201,804
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	70,966	10,138	.....	.....	302,136	.....
Gasoline	74,771	10,682	.....	.....	504,956	405,469
Lubricants	.....	.....	.....	.....	15,824	21,990
Foreign exports—						
Crude oil	.....	.....	73,575	10,511	781,226	107,736
Fuel oil	.....	.....	.....	.....	582,109	798,303
Diesel and gas oil	.....	.....	.....	.....	352,107	294,708
Gasoline	.....	.....	60,918	8,703	2,089,131	2,624,793
Kerosene	96,080	13,726	86,682	12,383	731,620	535,972
Lubricants	.....	.....	.....	.....	24,934	.....
Naphtha distillates	.....	.....	.....	.....	.....	20,100
Coastwise-domestic—						
Fuel oil	110,362	15,766	84,122	12,017	1,730,732	2,427,860
Diesel and gas oil	.....	.....	.....	.....	238,094	278,359
Gasoline	57,159	8,166	74,250	10,607	1,964,224	2,183,504
Kerosene	6,311	902	.....	.....	72,067	198,605
Naphtha distillates	.....	.....	.....	.....	.....	49,780

on a piece of property near Little Lake and Butler Roads in the Santa Fe Springs Field and preparations are under way to resume work on an old hole abandoned several years ago by the Petroleum Producers Syndicate. If the old hole can be cleaned out, drilling will be resumed at 3,917 feet and the well completed within 30 days.

Kettleman Hills

There were no developments of unusual importance in the Kettleman North Dome Field, although one new well was spudded in and preparations started for drilling three additional holes. The new well was Kenda's No. 32-32-J in Section 32-21-17. The new wells scheduled to be started are Nos. 41-29-J, No. 58-29-J and No. 81-27-Q of the Standard Oil Co. The Kettleman North Dome Association is expected to complete two new wells in the North Dome within 30 days. One of these, however, may be somewhat disappointing to those not in close touch with drilling operations in the North Dome. The well which may lead to wild rumors that Kettleman Hills is overrated is Kenda's No. 36-30-J. This well, in the extreme western part of the field, can be expected to show only small production at best as the company is making preparations to test out only 55 feet of oil sand. Because of its position on the structure and the care with which drilling operations are carried on, small production should not be construed as an indication that Kettleman Hills has shown any evidence of depletion. Kenda will probably add another well to its list of producers later in the month when No. 81-10-P is finished and this will probably be followed into completion by No. 76-34-Q within a few weeks. The Associated Oil Co. is also expected to list a new well for completion in the North Dome as its No. 3 Whepley is rotating at 8,500 feet. This well has about 250 feet to go before completion. In the Kettleman Middle Dome Field, the Petroleum Securities has found it advisable to install a new and heavier master gate because of the rapidity with which gas pressure has built up during the past few weeks. This company is still held up with mechanical trouble at 9,332 feet and progress in the Burbank well has been exceedingly slow. The Standard's test in the Middle Dome is likewise held up with a fishing job as the drill pipe in Standard's No. 6-29-V twisted off at approximately 5,850 feet.

Fruitvale

The Bankline Oil Co. recompleted its No. 1 in the Fruitvale Field of Kern County early in the week and this well, bottomed at 4,044 feet and finished with a 4¾-inch liner carrying 176 feet of perforated, was returned to production doing 210 bbls. of clean 22.9 gravity oil per day. It was given a preliminary production test several months ago and, while it registered commercial production, it sanded up and required corrective work. The Bankline also completed No. 2-B, flowing 350 bbls. of clean 24.1 gravity oil per day from 4,001 feet. With several wells in this field either coring in the oil sand or expected to pick up the pay momentarily, we may anticipate the completion of several commercial producers in the Fruitvale Field in the next few weeks. The preliminary production test conducted on No. 1 Mascot by the Standard Oil Co. failed to result satisfactorily and drilling is expected to be resumed within a few days. This well, the most important project under way in the Midway-Sunset Field, did not show any oil or gas on an open hole test from 9,629 feet, and, while not especially disappointing, indicates the probability that some additional hole will be necessary before a subsequent test is justified. The test conducted by the Standard is of more than passing interest as the company announced it had not found any oil sand when drilling operations were suspended approximately 19 months ago. The tests initiated upon the resumption of drilling tend to indicate that some gas and perhaps a few colors must have been logged just previous to the suspension of work at the close of 1930.

Ventura Avenue

The Associated Oil Co.'s No. 20 on the Ventura Land & Water Co.'s property finished during the latter part of July has cleaned up in good shape, and this well, the latest producer to be finished in the Ventura Avenue Field, is flowing 1,005 bbls. of clean 27.6 gravity oil per day from 7,071 feet. In addition to the oil, the well is producing 1,600,000 feet of gas, testing a little better than 2 gallons of natural gasoline to each 1,000 feet of gas. The Associated has severely beaned back No. 83 Lloyd, its deep well in the Ventura Avenue Field, and it is believed probable the company will take its entirely off production. The General Petroleum has moved in rig material for a new well to be drilled on the Barnard property and the bit should begin making hole during the next three weeks. The Shell Oil Co. is also starting a new well in the Ventura Avenue Field, although the objective of this well, No. 74 Taylor, is not expected to be the new deep 57 zone opened by the Associated. The Shell will find it obligatory to engage in deep drilling if either the Associated or General Petroleum permits wells in this horizon to remain on production. Operators in this field have maintained a commendable attitude on curtailment and have effected an unusually high degree of proration in view of which it is logical to assume that the same degree of co-operation will be maintained.

Carpinteria

The Texas Company, although it has abandoned a wildcat at Carpinteria, plans to retain a limited amount of acreage along the ocean front in the event additional projected development might result in the discovery of a new field. This is of interest since the Casitas Oil Co. is completing negotiations for drilling a tideland project on permit No. 202. The Casitas Oil Co., if negotiations are concluded, will construct a pier 500 feet long as the company's geology is based on the assumption that the potential field at Carpinteria lies out beyond the high tide line. This theory is apparently supported by the large gas well which the Continental Oil Co. finished and subsequently abandoned in this area a few years ago. The Continental's gasser appeared to be a dry gas but the existence of asphaltic outcrops in this area tends to confirm the opinion that there is a substantial accumulation of oil and gas at some point in the immediate vicinity. The Standard is rotating in a hard gray sand and a dark shale in its initial test on Santa Rosa Island, located off the coast of Santa Barbara and, while nothing warranting a production test has been logged from the grass roots down to 2,300 feet, this does not preclude the development of production later. The Western Gulf, due to the loss of a portion of the fishing string, is faced with a rather complex fishing job on No. 1 Bradley, the company's deep wildcat in the Santa Maria area at 10,294 feet, and the possibility of an early recovery is a matter of conjecture. The Continental Oil Co. is coring ahead in an oil sand and shale in No. 1 Grubb, the semidiscovery well in the San Miguelito Field of Ventura County, and while the outlook is rather favorable at 7,145 feet, the well is not showing any great amount of gas, a characteristics rather peculiar to this field.

DR. EDELEANU GETS MEDAL

NEW YORK, Aug. 6.—The Institution of Petroleum Technologists has awarded the Redwood Medal to Dr. Lazar Edeleanu, prominent Rumanian engineer, for his contributions to the improvement of oil refining technique.

The Redwood Medal is the highest honor conferred by the institute, and Doctor Edeleanu's selection is the first under the new rules of the institution. The medal formerly went for a paper of outstanding merit presented during two sessions of the institute, but henceforth is to be awarded on any petroleum technologist of eminence, regardless of nationality or affiliation with the institution. Doctor Edeleanu developed a liquid sulphur dioxide method of treating oils, now used by several refining companies.

Iraq Petroleum Co. Needs 60 Good Electric Welders

NEW YORK, Aug. 8.—R. C. Kincaid of the employment department of the Y.M.C.A. at 109 West 54th Street, New York, has been authorized by the Iraq Petroleum Co. to hire 60 experienced electric welders for work on construction of the Iraq pipe line.

Applicants are to be engaged for the duration of the work, between two and three years, and will have their expenses to and from the point of employment paid, in addition to their regular salaries.

MRS. KATHERINE HUFF DIES

Mrs. Katherine Sutton Huff, 83, widow of John L. Huff, early day oil man in Pennsylvania, West Virginia, New York and Oklahoma, died at the home of her son, J. Eugene Huff, Tulsa, last week. Born in Kingston, Ontario, she married in 1875 and resided for many years in Bradford, Pa. The later years of her life were spent in Tulsa and Houston, Tex.

T. B. CAMBLIN DIES

Trelawney B. Camblin, 74 years old, and for more than 20 years an employe of the Gypsy Oil Co., died at his home in Tulsa last week following a stroke of paralysis.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	9- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Co-operative Dev. Co., No. 1 Del Rey, Los Angeles Co.	26- 2-15	4,301	sd. sh. drilling
Hogan, N. S., No. 1 Hawthorne, Los Angeles Co.	23- 3-14	261	sd. drilling
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20- 3-14	6,378	suspended
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	4,325	cleaning out
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	suspended
Kyle, W. A., No. 1 Inglewood, Los Angeles Co.	7- 2-14	4,318	recemented
Pacific Westerns, No. 16 Inglewood, Los Angeles Co.	8- 2-14	2,570	cemented
El Dorado Oil Co., No. 1 Puente, Los Angeles Co.	30- 2- 9	2,860	suspended
Jones, W. L., No. 1 Bell, Los Angeles Co.	31- 2-12	1,593	suspended
Weist Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	4,902	suspended
Blinn & Gray, No. 1 Montebello, Los Angeles Co.	6- 2-11	5,060	suspended
McNeil, A. W., No. 1 Montebello, Los Angeles Co.	7- 2-11	rig	suspended
Wardell & Menichini, No. 1 Montebello, Los Angeles Co.	2- 2-11	304	suspended
Yellowstone Oil Co., No. 1 Alhambra, Los Angeles Co.	24- 1-13	3,919	suspended
Caballero Estates, No. 1 Calabasas, Los Angeles Co.	23- 1-16	1,604	suspended
Marble, Willard, No. 1 Chatsworth, Los Angeles Co.	6- 2-16	1,395	suspended
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	2,418	sd. sh. drilling
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	7,259	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	1,970	suspended
Mineral Expl., No. 1 Capistrano, Orange Co.	8- 8- 7	261	sd. sh. drilling
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	3,990	sd. sh. drilling
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4- 6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25- 1- 2	2,392	suspended
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2- 8	....	location
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	670	sd. sh. drilling
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	764	sd. sh. drilling
Borderland Oil Co., No. 2 Encinitas, San Diego Co.	29-16- 4	2,677	suspended
South Bay Oil Co., No. 1 Border, San Diego Co.	31-18- 2	1,243	suspended
Shannon, G. H., No. 1 Kearney, San Diego Co.	14-15- 3	446	suspended

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	2,300	hd. sd. drilling
Barnsdall, No. 1 Los Alamos, Santa Barbara Co.	31- 8-33	5,331	plug 4,250 ft.
Western Gulf, No. 1 Santa Maria, Santa Barbara	5- 9-33	10,294	fishing D/P
Wilson, N. S., No. 1 Los Alamos, Santa Barbara Co.	2- 7-35	4,979	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	3,291	fishing D/P
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	5,510	redrilling
Western Seaboard, No. 1 Naples, Santa Barbara Co.	7- 4-29	5,134	cleaning out
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	2,345	suspended
Casitas Oil Co., No. 1 Carpinteria, Santa Barbara Co.	tideland	....	location
Associated, No. 1 Rincon Creek, Ventura Co.	19- 4-24	2,080	suspended
Woodrow Pet., No. 1 San Miguelito, Ventura Co.	4- 3-24	3,510	sd. sh. drilling
Continental, No. 1 San Miguelito, Ventura Co.	23- 3-24	7,150	coring
Miller, J. W., No. 1 Miguelito, Ventura Co.	33- 3-24	....	material
Bell, H. H., No. 1 South Mountain, Ventura Co.	22- 3-21	2,484	will deepen
Wilshipre Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	....	material
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	2,116	sd. sh. drilling
Magu Synd., No. 1 Oxnard, Ventura Co.	17- 1-25	5,812	suspended
American Oil Co., No. 1 Conejo, Ventura Co.	33- 2-20	2,050	cleaning out
Wilshire Oil Co., No. 1-A Buttonwillow, Kern Co.	7-29-24	7,000	plug 2,380 ft.
Milham Expl. Co., No. 17 Buttonwillow, Kern Co.	17-28-23	2,712	testing
Purman, T. H., No. 1 McKittrick, Kern Co.	22-29-21	4,610	suspended
Welport Oil Co., No. 2 McKittrick, Kern Co.	19-29-21	370	gr. sd. drilling
General Pet., No. 1 Belridge, Kern Co.	30-28-21	8,260	suspended
Wallace, K. C., No. 1 Belridge, Kern Co.	32-29-21	4,222	suspended
Rio Cal Pet., No. 1 Shale Hills, Kern Co.	2-27-18	2,355	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,225	suspended
Holloway, A. S., No. 1 Devils Den, Kern Co.	11-25-18	....	location
Hannah, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,516	cleaning out
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	1,722	will set pipe
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	sd. sh. drilling
Regina Oil Corp., No. 1 Mojave, Kern Co.	26-10-14	3,148	hd. sd. drilling
Meridian Oil Co., No. 1 Mojave, Kern Co.	11- 9-15	4,000	suspended
Harding, J. B., No. 1 Mojave, Kern Co.	5-10-10	1,020	redrilling
Ritchie, J. J., No. 1 Tejon, Kern Co.	33-11-19	6,025	suspended
Descanso Oil Co., No. 1 Tejon, Kern Co.	31-11-19	2,749	suspended
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-32-22	2,693	redrilling
Emerich Oil Co., No. 1 Carrizo Plains, San Luis Obispo	22-32-22	1,981	redrilling
Trav-El Oil Co., No. 1 Carrizo Plains, San Luis Obispo	7-32-22	2,450	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Martin, J. D., No. 3 Edna, San Luis Obispo Co.	5-31-13	311	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Schilling, C., No. 1 Atascadero, San Luis Obispo Co.	1-29-12	1,650	suspended
Shell, No. 1 San Miguel, San Luis Obispo Co.	4-25-12	mtl.	bldg. rig
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,340	cleaning out
Brown, W. F., No. 1 Parkfield, Monterey Co.	15-23-14	1,051	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Woodward, Glen, No. 1 Dudley Ridge, Kings Co.	32-22-20	585	suspended
Scott Bros. Drlg. Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,843	suspended
Lacal Nat. Gas Co., No. 1 Dudley Ridge, Kings Co.	32-22-20	341	suspended
Kettleman Nat. Gas Co., No. 1 Dudley Ridge, Kings Co.	18-22-19	1,100	suspended
Irma Investment Co., No. 2 Dudley Ridge, Kings Co.	7-23-20	1,224	suspended
Triune Oil Co., No. 1 Dudley Ridge, Kings Co.	5-23-20	350	sd. sh. drilling
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	rig	suspended
Eagle Oil Co., No. 2 Dudley Ridge, Kings Co.	15-23-20	1,342	sd. sh. drilling
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	5,694	fishing
Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co.	10-23-16	1,148	test W.S.O.
Mid-California Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	grade
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Guess, E. B., No. 3 Dudley Ridge, Kings Co.	12-23-22	1,340	suspended
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	5,092	suspended
Sheldon & Gholson, No. 1 Porterville, Tulare Co.	34-22-27	618	sd. sh. drilling
Hayman Oil Co., No. 1 Porterville, Tulare Co.	17-23-28	564	sd. drilling
Gravity Expl. Co., No. 1 Alpaugh, Tulare Co.	11-24-23	2,207	suspended
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,051	sd. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	3- 2-10	4,791	sd. sh. drilling
Hilderbrandt, R., No. 1 Crows Landing, Stanislaus Co.	36- 6- 7	1,130	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,600	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	23-12- 3	3,043	suspended
Easton & Monell, No. 1 Colma, San Mateo Co.	25- 3- 6	3,136	suspended

New Field Is Indicated on Ariola Geophysical Prospect in Eastern Hardin County, Texas

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Aug. 8.—A development program, the extent of which has not been witnessed in several years, is getting under way on the Gulf Coast. While the Conroe district is responsible for much of the new work, the rapidly increasing activity is being felt generally throughout the territory, not only around many of the older domes but also in wildcatting. Drilling is being resumed on a number of geophysical prospects where development has been suspended for long periods.

Although the Conroe area is the center of interest on the Gulf Coast with that field beginning to assume major proportions and where drilling has reached that stage in which new wells are being expected with increasing numbers, considerable attention was being centered over the week end on the Ariola geophysical prospect in eastern Hardin County, where indications point to the opening of another new field. There, Houston Oil Co. and Republic Production Co.'s joint No. 1 Ariola fee is in a sand at 3,262-74 feet and showing considerable oil and gas. A string of 9⅝-inch casing has been set and cemented at 3,259 feet.

This is the third sand encountered by this test, which is the first to be drilled on this prospect. The other sands, one at 2,315-25 feet and the other around 2,800 feet, were passed up without testing. While of interest from the angle of possible additional crude reserve on the coast, Ariola offers no possibilities of a drilling or lease play as the prospect is tied up and under controlled operation. However, the discovery will serve to turn more attention to the many other geophysical prospects on the coast which so far have not been developed and which offer possibilities of additional oil reserve.

At Conroe, Gulf Coast Drilling & Production Co.'s (Plummer & McDaniel) No. 1 South Texas Development Co. gave that field its seventh producer with its completion late in the week flowing at the rate of 820 bbls. of pipe line oil from the sand at 5,132-57 feet. Production is through a three-sixteenths inch choke with pressure of 575 pounds on tubing and 700 pounds on casing. The well is located on this company's 60-acre tract in the Theodore Slade Survey, between Strake Oil Corp.'s No. 2 South Texas Development Co. and Heep Oil Corp.'s No. 1 Hamman, Charles Stewart Survey, the latter of which was completed over a week ago extending the field over a mile to the southwest.

Heep Oil Corp.'s No. 1 Brent, D. W. Collins Survey, at the northeast end of the Conroe Field, has been completed as a gas well with bottom of the hole at 5,010 feet. Forty-nine feet three inches of 5½-inch screen with 105 feet 8 inches of blank was set at this depth. Production estimated at 8,000,000 feet daily is through tubing and a five-sixteenths inch choke with shut-in pressure 1,500 pounds. This hole originally was drilled to a total depth of 5,254 feet where it was in salt water sand after failing to encounter the oil pay of the field and was plugged to its present depth.

An important trade has just been completed by Humble Oil & Refining Co. in the purchase of the Heep Oil Corp. and C. C. Steinberger 154-acre R. L. Cartwright, Jr., tract in the John Davis Survey on the east side of the field. The consideration was reported as $500 cash and $600 in oil per acre with an overriding interest. One well located in the northwest corner, an offset to Heep Oil Corp.'s Freeman well, same survey, is now in the sand at 5,060-80 feet, standing cemented with 7-inch casing at 5,058 feet.

Another outpost limit to the field was established the past week when Rowe & Flowers' No. 1 Varner, in the west R. House Survey and just south of the town of Conroe, drilled salt water sand at 5,247-55 feet and was abandoned. This test, which is over 3 miles to the west and north of the present production and development, has been watched closely as a key test and its failure virtually cuts off the townsite of Conroe from the play unless there is some kind of a saddle between this well and the same company's No. 1 Alexander in the north A. McCown Survey, which being about 2½ miles easterly from the Varner well on a line passing south of the town, looks like the north end of production at that point. Late in the week the Alexander well was in shale below 5,223 feet.

Seven new locations were made at Conroe during the week, six of these being by the Humble Oil & Refining Co. as obligated offsets to recently completed producers. Humble's new locations, which will have to be drilled are No. 2 Cartwright, John Davis Survey, south offset to Heep Oil Corp.'s No. 1 Cartwright; Nos. 5 and 9 South Texas Development Co., south and east offsets respectively to Gulf Coast Drilling & Production Co.'s No. 1 South Texas Development Co.; No. 6 South Texas Development Co., north offset to Heep Oil Corp.'s No. 1 Hamman; Nos. 7 and 8, south and east offsets, respectively, to Alpha Oil Co.'s No. 1 South Texas Development Co. The latter company has made location and is rigging up for No. 1 Dunn, center of north 20 acres of the south 50 acres in the John Real Survey.

Additional purchases by Humble Oil & Refining Co. amounting to between 500 and 600 acres east and northeast of the present production were reported during the week. These acquisitions included a number of more or less scattered smaller tracts in the John Davis, C. T. Darby and Strickland Surveys which fill in some holes in the company's holdings.

Completion of The Texas Pipe Line Co.'s 6-inch line has given the Conroe Field its second pipe line outlet. This line, extending 14 miles to a point near Spring on the company's North Texas-Humble-Port Arthur trunk system, is running oil from Alpha Oil Co.'s No. 1 South Texas Development Co., which came in two weeks ago flowing 118 bbls. hourly.

Rabbs Ridge

Rabbs Ridge, Fort Bend County, which now looks like one of the biggest proposition on the Gulf Coast, added two more good producers during the week in Humble Oil & Refining Co. and Gulf Production Co.'s joint Nos. 4-A and 6-A Lockwood & Sharp, the former flowing 53 bbls. hourly at 5,315 feet and the other 63 bbls. hourly at 5,325 feet.

Six additional locations have been made on the jointly owned block, where a steady string of new wells is being brought in under a systematic development program being carried out in the field. All the new locations will not be drilled at once, although additional rigs probably will be moved into the field and operations carried on more actively than in the past. The recent extension by The Texas Company of production to the north and out of the Humble and Gulf's jointly owned holdings is expected to result in a competitive play in the new area where several companies own smaller tracts.

That an effort will be made by the Railroad Commission to restrict drilling at Rabbs Ridge to one well in 20 acres is indicated by the commission, which has called a hearing to be held at Houston, August 16, when the matter will be brought up. Development to date has been on a much more limited scale than that but the restriction is expected to be put in force to forestall any possible overdrilling in the new extension area.

Barbers Hill

At Barbers Hill, Mills Bennett Production Co. and Texas Gulf Producing Co. completed a new well each, both being on the east side. The former company's No. 3 Kirby came in flowing an estimated 2,000 bbls. from sand at 4,409 feet, while Texas Gulf Producing Co.'s No. 2 Cornelia Barber made a small well at 4,309 feet. Of particular interest, however, at Barbers Hill is location made by the latter company for No. 2 O. K. Winfrey, which will be a key test in linking production on the west flank with that on the extreme northwest. The location is a wildcat approximately midway between the two productive areas being about 1,200 feet to the north of the northermost well on the west flank and about 900 feet south of the southermost well on the northwest flank.

Rio Bravo Oil Co.'s No. 3 Fisher, inside well on the west flank of Barbers Hill ,is being watched pretty closely in its efforts to drill through the overhang there. The well drilled through salt at 4,975-5,364 feet but went back into anhydrite. Late in the week at a total depth of 5,692 feet the bit went out of solid anhydrite into a broken formation and operators were preparing to core.

Iberville Parish

Shell Petroleum Corp. is resuming development on its White Castle Dome, Iberville Parish, Louisiana, where derrick is being built for No. 6 Wilbert. Drilling has been suspended on this dome for a couple of years ever since the abandonment of Shell's No. 5 Wilbert, which was quit in salt at 5,497 feet. Two out of the five wells drilled so far at White Castle have been productive.

Lost Lake

At Lost Lake, Chambers County, Pure Oil Co. has made location for No. 16 Mayes, a deep east flank wildcat. This is the first new operation at that dome in a couple of months. One rig usually is kept running there but since the completion of No. 15 Mayes two months ago no new tests have been started.

Mykawa Test

Another interesting test will be Hamill & Smith's No. 1 Ward at Mykawa, southeast of Houston, which test now is being rigged up. Location is in the Ward 10-acre tract, Block 186, William Lovett Survey. The lease formerly belonged to The Texas Company, it having been acquired recently by the present operators. The completion of a good well several weeks ago by Crown-Framer Oil Co. in its No. 2 Minnetex has caused Mykawa to be looked upon with a little more favor. The Crown-Framer well is on acreage formerly held by Humble Oil & Refining Co. which gave up its holdings after the drilling of a number of deep tests without getting any important production, although two tests were completed as small wells.

Montgomery County

Gholson Brothers and Rycade Oil Corp.'s No. 1 Drought, located in the Kronkrite Survey, Willis district, northern Montgomery County, has been abandoned as dry in shale at 4,125 feet. This was the first of two tests contracted to be drilled on this block, originally worked several years ago by Rycade Oil Corp. and on which a number of core tests were drilled, but which recently was leased by Ed Parsons and associates of Fort Worth.

Between 25 and 30 new locations were made in coastal Texas and Louisiana the past week. Thirteen of these were in the Conroe and Rabbs Ridge Fields but the remainder were scattered over the entire district with the majority being wildcats.

Gulf Coast Fields and Wildcats

Week Ending August 6

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks:
Grant & Baker's No. 1 Chesley, W. C. White Sur., 150 ft. from NW line and 150 ft. from SW line of 26-acre tract	Sandy shale 3,043 ft.; S.D.

BARBERS HILL—CHAMBERS COUNTY

R. E. Ferrell's No. 2 Wilburn, Henry Griffith League, 215 ft. W of No. 1 in center of 45-acre tract	T.D. 3,000 ft. in shale; fishing.
Humble Oil & Ref. Co.'s No. 1 Kirby, Henry Griffith League, 520 ft. N along E line from SE cor. of tract, thence 75 ft. W at right angles, thence 75 ft. N at right angles	Location.
Mills Bennett Prod. Co.'s No. 1-B Barber (W.O.), Henry Griffith League	T.D. 5,320 ft.; sidetracked at 4,973 ft. and drlg. sand 5,332 ft.
Mills Bennett Prod. Co.'s No. 4-A E. W. Barber, Henry Griffith League, 300 ft. W of No. 3-A, 50 ft. N of S line	Drlg. shale and lime 4,893 ft.
Mills Bennett Prod. Co.'s No. 3 Kirby, Henry Griffith League, 645 ft. E, 40 ft. S, NW cor. of tract	Sand showing oil 4,379-4,409 ft.; set 186 ft. of 5-in. screen; comp. flowing 2,000 bbls. fluid, 22 per cent water, ¾-in. choke.
Mills Bennett Prod. Co.'s No. 4 Kirby, Henry Griffith League, 300 ft. W of No. 3	Rigging up.
McAlbert Oil Co.'s No. 4 Wilburn (D.D.), Henry Griffith League	Drlg. sand and shale 4,880 ft.
Rio Bravo Oil Co.'s No. 3 Fisher, Wm. Bloodgood Sur., 300 ft. E and 33 ft. S of NW cor. of tract	Coring broken formation 5,692 ft.
Sun Oil Co.'s No. 3 Higgins, Wm. Hodges Sur., 50 ft. from E line of tr. and direct offset McAlbert Oil Co.'s No. 2-B Higgins	Drlg. salt 1,729 ft.; top of salt 1,472 ft.
Sun Oil Co.'s No. 3 Smith (W.O.), W. D. Smith Sur.	5,618 ft.; cmtd. 5-in. liner 5,425 ft.

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First Commercial Oil Completion in Mississippi Estimated From 200 to 500 Barrels Daily

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Aug. 8.—The most important development in this division during 1932 was reported during the past week from the Rankin County area of the Jackson Field in Mississippi. Henslee and others' No. 1 Warner, Section 14-5n-1e, seems certain of being the first commercial oil well in Mississippi, an area which has experienced increased wildcatting activity during the past two years. The new producer is not a rank wildcat, being located on the southeastern flank of the Jackson Field, which has more than 90 high pressure gas wells producing from the chalk around the 2,400-foot level. It is about one-half mile south of the nearest gas well. The chalk was topped at 2,464 feet and 5⅝-inch casing was set at 2,465 feet. After drilling 5 feet into the chalk, bailing had progressed to within 200 feet of the bottom when the test developed a steady flow of 13 gravity low grade oil. The well was allowed to flow open through casing for 10 minutes before being shut in. The next morning the flow was resumed for about two hours through 1¼-inch choke into earthen pits, producing about 200 bbls. of oil with no water. As a result of these preliminary tests, it is estimated that the well will make from 200 to 500 bbls. daily.

Since the test has not been opened for a longer period, it has not been determined whether the pressure is developed by gas or salt water. The theory, together with results of other wells in this area, indicated a sharp dip to the southeast, but a check of the logs and surface elevations reveals that the present test is 30 feet structurally higher than the Gulf Refining Co.'s No. 1 Rainy in the NW cor., Section 13-5n-1e, one-half mile northeast toward the field. The Gulf test, drilled in 1930, was carried to a total depth of 3,606 feet, but had an estimated flow of 10,000,000 feet of gas with large quantities of salt water at 2,520 feet. After plugging back to 2,500 feet, a test developed another flow of gas with a heavy spray of 13 gravity oil and salt water from 2,513 feet and the well was abandoned. Regardless of what pressure is behind the oil flow, whether gas or salt water or both, no salt water has shown up to date, and the fact remains that this is the first well in Mississippi to produce oil in commercial quantities and will undoubtedly stimulate the search for a commercial pool in that area. Many operators who are familiar with structural conditions in the vicinity of the Jackson Field believe that deeper drilling within a 50-mile radius will develop an oil field.

De Soto Wildcat

A wildcat in DeSoto Parish, North Louisiana, Walters-Nicholson's No. 1 Jim Guy, Section 3-11-13, cored 6 feet of oil sand and came out of the hole with oil dripping from the drill stem. Reports from the test gives the top of the red beds at 2,747 feet and the total depth at 2,756 feet. A show of gas was tested in the chalk at an early stage in this well at 1,675 feet after setting 8-inch casing at 1,582 feet. The base of the chalk was encountered at 1,845 feet.

In the western part of Ouachita Parish, Wilson & Mitchell's No. 1 Williams, Section 5-16-1e, is reported to have recovered some oil from the bottom of the hole but no information is available as to the quantity and gravity. The test has been shut down for several weeks at 3,480 feet. Another wildcat, the DeRidder Development Co.'s No. 1 McMahan, Section 33-2s-9w, in Beauregard Parish, tested during the past week with barren results. A drill stem test from 1,122-34 feet developed four joints of mud with no oil in five minutes, and another test at 1,265 feet was dry and the well is shut down, waiting orders.

A number of recently located wildcats in other parts of North Louisiana have spudded in and are making good progress. In the northwestern part of Bossier Parish, Braezelle & Steckall's No. 1 Nattin, Section 15-22-14, has set 12½-inch casing at 101 feet and is drilling at 560 feet. This test of one-fourth mile north and east of the Plain Dealing Oil Corp.'s No. 1 Nattin, completed last year as a 10-bbl. pumper of 30 gravity oil. The present test is using this oil for fuel. On the north flank of the Haynesville Field, W. E. Rembert's No. 1 Hunt, Section 18-23-8, has set surface casing at 100 feet and is drilling at 805 feet. This will be a shallow test of the Nacatoch sand, believed by some to produce in this area because of shows developed while pulling casing in several old wells in the field which were completed from the Blossom around the 2,700-foot level. In Morehouse Parish, 3½ miles southeast of Bastrop, Feazel & Kalil have spudded in and set surface casing at 119 feet in their No. 1 Davenport, Section 28-21-6e. Other wildcats in North Louisiana that are being watched closely follows: Natchitoches Parish, Saline Bayou Development Co.'s No. 1 Bodcaw Lumber Co., Section 9-12-15, drilling in sand rock at 815 feet; Ouachita Parish, about 10 miles west of Monroe, the Monroe Oil & Development Co.'s No. 1 Thieler, Section 34-18-2e, set surface casing at 112 feet; Vernon Parish, the Llano Co-operative Colony's No. 1 fee, Section 34-2n-9w, did not set 10-inch casing at 1,300 feet as anticipated and is drilling ahead at 1,420 feet; Webster Parish, George Pearce and others' No. 1 Ambrose, Section 22-20-10, a wildcat about 7 miles south of the Cotton Valley Field, has spudded in and shut down temporarily repairing boiler.

Outlook for Wildcatting

The outlook for more wildcatting activity in the North Louisiana district looks brighter each week, about 15 parishes already have active drilling tests and blocks are reported being assembled in several others. Two Trinity tests in the Sugar Creek area, Claiborne and Lincoln Parishes, will soon be ready to spud in. O. G. Collins has turned 5,000 acres of his 14,000-acre block centering around Section 13-21-5 to Patt Marr and others, and although the contract calls for a 4,500-foot test to be started by January 1, 1933, it is understood that actual operations will get under way by September 15. The territory surrounding the test carries a good geological report, worked out and submitted by A. F. Crider and John Y. Snyder, geologists of Shreveport. Mr. Snyder and Mr. Crider have had many years' experience in North Louisiana and Arkansas and have been unusually successful in mapping out structures that eventually produced. During the last five years they have made a particular study of the Trinity horizons, especially in the Sugar Creek area. Interest in obtaining leases around these deep tests is evidenced by the activity. W. O. Blackman of Monroe has leased 4,000 acres adjoining the Collins on the north and east. Another test in this vicinity, Benedum & Trees' on an 8,000-acre block centering around Section 23-20-4. It is understood that titles are being cured and operations will be started by September 15.

Nine Completions

Nine completions were reported for the division, summarized as three oil wells, one gas well and five dry holes. The Zwolle Field had an even break with three producers and three dry holes, but two of the dry holes were unexpected disappointments as they were offsets to good producers. The Coates Petroleum Co.'s No. 3 S. S. Martinez, Section 3-7-13, was abandoned in salt water at 2,500 feet, and the same operators' No. 1 B. Nulton, less than one-fourth of a mile south, was dry and abandoned at 2,499 feet. Both tests were in the new hot spot on the western flank of the field and were surrounded by production. All of the producers were from the eastern flank of the field. The Acme Oil & Gas Co.'s No. 2 Louisiana Long Leaf Lumber Co., Section 3-7-11, pulled liner from 2,455 feet and deepened to 2,555 feet resulting in a 72-bbl. pumper. E. M. Thomason's No. 1 Travis, Section 12-7-11, was completed flowing 100 bbls. daily through 4½-inch casing from 2,525 feet. The other producer was a slight extension to the south and east of this area. W. C. Turnbow's No. 2 Williams, Section 13-7-11, is flowing by heads an estimated 100 bbls. daily through 2-inch tubing from 2,591 feet. The third dry hole in the Zwolle area was J. B. Hughes' No. 1 Stille, Section 36-8-11, dry and abandoned at 2,693 feet. In DeSoto Parish, near the town of Pelican, J. M. Bridges' No. 1 Joiner, Section 33-11-12, reached the contract depth of 3,000 feet without encountering a show and was abandoned.

MISSISSIPPI

In the Hinds County area of the Jackson Field, Mississippi, Cleve Love and others' No. 1 Security Realty Co., Section 1-5n-1e, was completed with an estimated open flow of 45,000,000 feet of dry gas from 2,400 feet. In the same county, McGuire and others' No. 1 Spring Lake, Section 11-5n-1e, which has stood temporarily abandoned for two months was officially abandoned and rig moved. The total depth was 2,487 feet. A wildcat in Lamar County, Mississippi, had discouraging results on test during the past week. Stauffer & Kouri's No. 1 Bond, Section 18-2n-14w, on drill stem tes: from 2,342-2,413 feet, developed 11 fourbles of salt water with a show of gas. The crew is reaming to 2,385 feet for another test.

Daily Average Runs

There was a net decrease of 605 bbls. in the daily average runs from the fields of North Louisiana and Arkansas during the past week. The former, due to an unexpected slump in Zwolle, declined 580 bbls. daily, while Arkansas practically held its own, with a 25-bbl. daily decline. The daily average runs from the several pools were:

NORTH LOUISIANA	
Caddo, light	5,045
Caddo, heavy	1,895
Cotton Valley	810
DeSoto and Red River	1,945
Elm Grove	340
Haynesville	4,210
Holly	260
Homer	2,860
Pleasant Hill	275
Sarepta-Carterville	910
Urania	3,600
Zwolle	7,185
Total	29,335
Total previous week	29,915
Decrease	580

ARKANSAS	
Champagnolle	1,810
El Dorado	3,120
Lisbon	490
Nevada	980
Smackover, light	2,910
Smackover, heavy	24,145
Stephens	660
Total	34,115
Total previous week	34,140
Decrease	25
Total both states	63,450
Total previous week	64,055
Decrease	605

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

BEAUREGARD PARISH

Company, well, farm name, section and block—	Remarks:
DeRidder Development Co.'s No. 1 McMahan, 158 ft. S. 160 ft. W NE cor. NW, Sec. 33-2s-9w	Tested dry; waiting orders 1,265 ft.

BIENVILLE PARISH

Blacklake Dev. Co.'s No. 1 Holstow, 600 ft. W, 100 ft. S, NE cor. SE SE, Sec. 17-18-6	Drlg. 2,599 ft.

BOSSIER PARISH

Breazelle & Steckoll's No. 1 Nattin, C SW NE, Sec. 15-22-14	Set 12½-in. 68 ft; drlg. 350 ft.

CALDWELL PARISH

Carter Bell's No. 1 Taylor, 150 ft. S, 150 ft. E, NW cor. NE SE, Sec. 17-14-4	S.D. 3,712 ft.
Hudson et al's No. 1 Burton, Sec. 35-12-2e	S.D. 2,950 ft.

CATAHOULA PARISH

National Drlg. Co.'s No. 1 Marsh McMiller, 70 ft. N. 100 ft. W, C, Sec. 26-9-6	T.A. 3,097 ft.

CLAIBORNE PARISH

Leue Oil Co.'s No. 1 Kinder, Sec. 2-21-7	Rigging up on old well.
W. E. Rembert et al's No. 1 Hunt, 150 ft. N and E, SW cor. E half NE NE, Sec. 18-23-8	Set 10-in. 100 ft; drlg. 805 ft.

DE SOTO PARISH

J. M. Bridges et al's No. 1 Joiner, 660 ft. S and E, NW cor., Sec. 33-11-12	Dry and abd. 3,000 ft.
Coker et al's No. 1 Boone, 200 ft. N and W, SE cor. SW NW, Sec. 13-10-11	S.D. 60 ft.
Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor., Sec. 31-14-15	S.D. 2,470 ft.
S. A. Guy's No. 1 Dowling, 469 ft. E, 332 ft. S, NW cor. NE, Sec. 31-14-14	S.D. 2,970 ft.
E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW, Sec. 30-13-15	Coring 3,780 ft.
DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-13-12	Rigging up.

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Central Ohio Most Active in East in New Work; Revival of Interest in Trenton Rock Area

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Aug. 8.—Few completions were reported for the week from the Central West Field, comprising the Lima, Central Ohio, Indiana and Illinois divisions, although there are many wells drilling and locations made for wells, the Central Ohio area being the most active in new work under way, as it is one of the important gas producing regions in the East. The same conditions exist in Indiana, gas and oil being found in many counties and much wildcat work has been done during the present year, indications being that more work will be done during the last half of the year.

In the old Lima Field only one completion was reported, the upper Sandusky Oil & Gas Co.'s No. 3 on the Charles Nete farm, better known as the Oscar Welker farm, Section 28, Crane Township, Wyandot County, which showed an initial oil production of 8 bbls. and 2,500,000 feet of gas, at from 1,324-40 feet. This is an exceptional find for that section of the old Trenton Rock Field, and may bring about a more active development. Four other wells are under way in Wyandot County. McPheron and others are drilling No. 5 on the Bowman-Brillhart farm, Section 21, Tymochtee Township, and another by the Erie Oil & Gas Co., No. 2 on the McLeod Brown farm, same section. In Crawford Township, Harpster and others are drilling on the L. G. Beis farm, Section 11, and in Ridge Township R. W. Kirk and others are drilling No. 2 Elmer E. Moser farm, Section 12. Back in 1895 Wyandot County developed some very nice wells.

The most active area of the Lima Field at this time is in the Tiffin Field, in Seneca County; seven wells are now under way in Hopewell and Liberty Townships.

In Sandusky County, O'Brien and others are drilling on the C. J. Rice farm, Section 17, Ballville Township.

CENTRAL OHIO

Four completions were reported from the Central Ohio Field, the best oil well for the period being that of the Ohio Fuel Gas Co. in No. 1-5,654 on the D. S. Snider farm, SW of Newcastle Township, Coshocton County, with an initial production of 50 bbls., at a total depth of 3,274 feet. Preston Oil Co.'s No. 1-1,511 on the John R. Rine farm, Section 16, Perry Township, same county, is reported making a good showing of oil and will be given a shot. Murphy and others are drilling on the John S. Rine farm, Section 17, same township. H. E. Perkins has a rig on the D. S. Shider farm, Section 7-A, Newcastle Township, same county.

In Lorain County, McMillan and others have a gas well in No. 1 on the Sylvia Jackson farm, Section 15, Carlisle Township, in the Clinton lime from 2,421-39 feet.

In Fairfield County, the City Natural Gas Works of Lancaster is drilling No. 3 E. E. and N. Linscott farm, Section 35, Berne Township, and Charles Blume and others are drilling on the Francis E. Frye farm, Section 36, Rush Creek Township, same county.

In Licking County the Settles Oil Co.'s test on the John A. Hughes farm, Section 2, Mary Ann Township, has settled down to a 1-bbl. pumper and a second test is drilling on the same farm. Williams and others are drilling a second test on the Ed A. Divan farm, Section 23, Fallsburg Township, same county.

In Muskingum County, the Wittmer Co. has a rig in for a second test on the Carl N. Riley farm, Section 11, Perry Township.

In Athens County, Alexander Township, A. D. Townsend drilled a dry hole in No. 5 on the Homer Riley farm, Section 34, at 149 feet. Bode and others are drilling a second test on the Charles Brandeberry farm, Section 17, Troy Township.

Tuscarawas County

In Tuscarawas County, Washington Township, the Capital Drilling Co.'s No. 5 Louis Little farm, Sections 32-33, showed no gas, but produced 24 bbls. initial from a depth of 3,748 feet. Oxford Oil & Gas Co. has a rig up on the T. B. and R. Shearer farm, Section 34, Frey and others are reported at a depth of 5,107 feet in No. 3 on the J. R. Weaver farm, Sections 3-4, Fairfield Township, same county.

In Stark County, Jackson Township, Brendall and others have started a test on the William and Clara Beikowski farm, Section 25, and the Fulton Oil & Gas Co. has a rig in for No. 1 on the Henry C. Rudy farm, Section 7, same township.

In Belmont County the Oko Oil & Gas Co. is drilling on the Alice M. Adams farm, Section 20, Union Township. E. P. Crouch and others are drilling on the Oscar Jones and others farm, Section 27, Kirkwood Township, same county. A. C. Peters and others are drilling a second test on the J. D. Jefferies and others farm, Section 31, Somerset Township, same county.

In Guernsey County, George Jewell and others have a rig on the Joseph Miller farm, Section 5, Monroe Township. J. F. Bosch is drilling on the Jennie Rose farm, Section 35, Oxford Township, same County. William Blackstone and others are drilling on the Mary Secrest and others farm, Section 8, Spencer Township, and O. G. Wherton is drilling a second test on the P. and J. Lecherha farm, Section 8, Westland Township, same county.

INDIANA

One of the old-time producing fields is being closely watched and indications are that Indiana is coming back into its own, as it shows a large increase in development work over many parts of the state. The theory has been held for a long time that nothing worth while would be found in the old Trenton Rock area that was very active back in the early nineties, but things have changed and operators are paying a great deal of attention to every nook and corner of the State. The bringing in of a gas well by N. E. Masters and others on the William O. Bailey farm, NE Section 25, Wayne Township, Jay County, rated as better than 2,000,000 feet, is bound to bring about a renewal of operations in that old-time producing county. Offset wells are bound to be drilled around this strong gas producer.

In Gibson County the Big Four Oil & Gas Co.'s No. 3 on the Lottie Hope farm, SE Section 18, Washington Township, produced an initial of 110 bbls., and in the southwestern portion of the state. Same company is drilling No. 1 Nora Shoulders farm, Section 7, same township.

In Pike County, Clay Township, the Indiana Southwestern Gas Corp. is drilling on the Phavilla Murray farm in Survey No. 5; also drilling on the L. J. Shawhan farm, NW Section 34, same township. H. H. Risher is drilling on the John Carter farm, Section 26, Madison Township, same county.

In Sullivan County, Curry Township, J. G. Havens drilled a dry hole on the A. Pittman farm at 540 feet. O. A. Thayer is drilling on the Joseph Frakes farm, SE Section 21, Hamilton Township. Scott & Whitlock are drilling No. 1 on the Tom and Kern Metzger farm, SE Section 24, Turman Township.

In Vigo County, Dr. C. C. Taliaferro, Jr., is shut down at 2,460 feet on the B. T. Rynerson farm, Section 21, Prairie Creek Township, and the Siosi Oil Co. is drilling No. 22 on the William Riggs farm, Section 32, same township.

Spencer County

In Spencer County, Dr. C. C. Taliaferro, Jr., drilled a dry hole in a second test on the Hugh Stuteville farm, in Section 4, Ohio Township, at a depth of 1,300 feet. Van's Oil, Inc., drilled in a 10-bbl. producer in No. 3 on the A. G. Grass farm, in Huff Township, in the Mooretown sand.

In Perry County, Conyers & Bugg's No. 4 on the Alvin Franchville farm, NW Section 30, Clark Township, the oil being found in the Jackson sand, with an initial production of 25 bbls. Same firm drilled a dry hole in No. 5 on the Lee Aders farm, SW Section 19, same township. Ohio Oil Co. is drilling No. 2 on the George K. Baird farm, SW Section 19, same township, showing for less than 2 bbls., and No. 4, same farm, is drilling. Roger E. Williams is drilling on the Math Gayer farm, SE Section 6, Anderson Township.

In Knox County the Glengarry Oil Co.'s test on the Emmett Bland farm, Location 261, Busseron Township, is reported with close to 1,500,000 feet at a depth of 615 feet. Knox Engineering Co.'s test on the Snapps farm, Location 252, same township, was a dry hole.

In Dubois County the Ohio Oil Co.'s test on the David Neukam farm, SE Section 25, Harrison Township, was dry at a depth of 1,730 feet.

In Switzerland County, Clarence Carter's test on the Carter lot, in the village of Vevay, was drilled into the St. Peter sandstone, which lies below the Trenton limestone, and Blue Lick water was struck and the well will be plugged and abandoned. Vevay Gas & Oil Co. is drilling on the R. E. Crutcher farm, SW Section 20, Craig Township, same county.

In Hamilton County, Lantz-Miller, Inc., is drilling on the E. Applegate, in Jackson Township.

In Vanderburg County, John L. Drake and others drilled in a fair gas well on

Renewed Drilling Campaign in Michigan; Two Completions in Midland Field

By GEORGE A. WHITNEY

MOUNT PLEASANT, Mich., Aug. 6.—Conditions are getting better in the oil and gas fields of Central Michigan and an active drilling campaign will continue until midwinter. This activity is centered in Greendale Township, Midland County, one of the best fields at this time east of the Mississippi River. In Midland County alone there were at the close of July, 29 strings of tools working and 18 locations made, according to permits from Lansing. This activity was brought about by the three advances in the price paid for crude by the Pure Oil Co. The Pure Oil Co. is now paying 85 cents a barrel as compared with 55 cents two months ago.

Two completions were made in the Mount Pleasant-Midland Field during the week, one a nice producer, Pure Oil Co.'s No. 2 in the southwest corner of the Paul D. Wampler farm, N half SE Section 9, Greendale Township, Midland County, which had an estimated initial of 300 bbls. In the same field, Walter L. McClanahan, Inc., drilled in No. 1 well, 990 feet from the north line and 330 feet from the east line of the Roy Caywood farm, SE NE SE, Section 36, Greendale Township, for a dry hole, the Dundee formation being topped at 65 feet high. The test may be drilled deeper.

The Michigan Gas & Oil Co.'s No. 1 in the southwest corner of Ira Bond farm, SW SW NE Section 12, Greendale Township, drilled a couple of weeks ago, with an initial of 75 bbls., was drilled 3 feet deeper, boosting the initial to around 350 bbls.

Drilling Depths of Wells

Pure Oil Co.'s No. 4-B, 990 feet from the south line and 330 feet from the east line of the Bernard farm, SE SE Section 9, Greendale Township, is nearing completion, while No. 5-B, same farm, is drilling around 1,600 feet. Same company's No. 2 well, 990 feet from the north line and 330 feet from the east line of the W. A. Cassidy and others farm, E half NW Section 16, same township, is drilling around 2,700 feet. Same company's No. 2, in the southeast corner of the Edward O. Harris and others land, SE NW Section 15, same township, is drilling around 3,500 feet and near the top of the Dundee. Same company is drilling around 2,200 feet at No. 2 well, 330 feet from the south line and 990 feet from the west line of the A. Seeley farm, SE SE Section 9, same township. H. J. Conover and others are reported drilling in the Dundee in their No. A-1 on the Rhemonschnider farm, NW SW NE Section 14, Greendale Township. Gordon Oil Co. is drilling around 1,600 feet in the northeast corner of the N. J. Skinner farm, NW NE NE Section 16, same township. Wellman Oil Co. is around 1,500 feet in No. 2 well, 360 feet from the south line and 990 feet from the west line of the John Bolen farm, SE SE NE Section 14, same township. Columbia Oil & Gas Co. is drilling around 2,250 feet in No. 2 on the William H. Hill farm, NE NW NE Section 16, Greendale Township.

American Natural Gas Co. is drilling 660 feet from the north and east lines of the Elmer E. Brehm farm, SE SE SE Section 10, Sheridan Township, Mecosta

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the County Poor farm, SW Section 33, Center Township, and now drilling No. 1 John Effinger farm, NW same section.

In Kosciusko County the Kosana Oil Corp. is drilling on the W. O. Wehrly farm, NE Section 10, Van Buren Township.

In Monroe County the Ohio Oil Co. and the Petroleum Exploration Co. are drilling on the C. M. Young farm, NE Section 28, Benton Township.

KENTUCKY

Western Kentucky is coming back rapidly and many strings of tools are running in the Owensboro district, although a large number of the wells are reported dry, but that is always expected in any part of Kentucky. The small cost of development in the shallow sands does not mean anything like drilling deep for the oil and gas and a dry hole does not hurt much.

Ohio, Daviess and Hancock Counties experienced a busy week and more completions were reported than for any one week in a long period.

In Ohio County, D. J. White and others' No. 5 on the Ernest Bickett 90 acres, showed an initial of 35 bbls., and No. 6, same farm, 15 bbls. This lease is 2 miles west of Haynesville. Bolling & Hume's No. 4 on the J. W. Christian 76 acres, about a mile north of Haynesville, was dry and No. 5 well, 400 feet from the north line and 600 feet from the west line of the same farm, is reported good for 5 bbls. Cumberland Petroleum Co.'s No. 9 on the David Brooks 120 acres, in the Haynesville area, was a dry hole. Same company had a duster in No. 23 Herbert Carden farm, a half mile west of Haynesville. James E. Ellis and others found a dry hole in the northeast corner of the Rachael Atcherson farm, near Adaburg, in their second test. Walker and others drilled a dry hole on the Albert Wright farm, 1½ miles southwest of Pellville. Lowman, Young and others struck a dry hole in their second test on the Doc Miller farm, 3 miles southeast of Haynesville.

In Daviess County there was quite an improvement over Ohio County, as out of seven completions four were producers and three dry holes. Ellis and Ashby's No. 7 well, 450 feet from the north line and 150 feet from the east line of the Myrtle Howard farm, in the Jones Pool, produced an initial of 50 bbls. at 638 feet. Hupp, Duff and others' No. 3 Ace Bratcher farm, in the Jones Pool, is reported with an initial of 50 bbls.; and No. 4 same farm, 30 bbls. No. 5 same farm, is reported a dry hole, at a depth of 974 feet. Mida McMahan's No. 6 on the Robert Jones farm, Jones Pool, and 150 feet from the north line and 1,150 feet from the east line of the lease, produced 40 bbls. initial from a depth of 633 feet. The Ohio Oil Co.'s test, 200 feet from the south line and 800 feet from the east line of the W. W. Mosley farm, 2 miles northeast of Whitesville, reported dry. In the Cane Run Pool, Brenner & Adams drilled a dry hole in the southeast corner of the B. Hazelrig farm, at a depth of 700 feet.

In Hancock County, Pellville Field, Kencal Oil Co. and others' No. 8 on the James B. McGarvin farm, near Victoria, reported a 10-bbl. producer, H. C. Smith and others' No. 3 on the Boyd Stout 50-acre farm, was also good for 10 bbls., with No. 4 drilling. Chester Oil Co. found a dry hole on the Bessie Fuqua farm. Vicars' No. 1 Dan Burke farm was a duster, as was the Chester Oil Co.'s test on the William Bond 140 acres, 4 miles northeast of Haynesville and in Hancock County.

In Henderson County, Niagara Field, the Imperial Oil & Gas Products Co.'s No. 3 S. A. Freeman farm is reported with an initial of 45 bbls.

Three Sands Oil Co. is drilling No. 1 on the Lawn Gibson farm in Daviess County.

In McLean County, Cameron-Thompson and others are drilling No. 3 on the G. B. McManama 150 acres, also drilling No. 1 Kerrick heirs farm, same county.

Ellis & Young are drilling No. 1 on the Wildow Shelton farm, near Greenville, in Muhlenberg County.

Establish New Depth Record in Turner Valley; Crude Shipped From Fort Norman Field

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Aug. 6.—According to official figures just issued by the Alberta provisional government, crude oil production for all Alberta fields for June aggregated 78,157 bbls., compared with 83,077 bbls. in May. The June production included 73,589 bbls. of naphtha and 1,378 bbls. of light crude from the Turner Valley Field; 2,528 bbls. of light crude from the Alberta end of the Red Coulee Field and 662 bbls. of heavy crude from the Wainwright Field.

Production from the Alberta fields for the six months ending June 30 aggregated 500,026 bbls. Of this total, 464,603 bbls. was crude naphtha from the Turner Valley Field. Turner Valley light crude aggregated 13,552 bbls.; Red Coulee light crude 19,118 bbls., and Wainwright heavy crude 2,753 bbls.

Turner Valley Deep Test

In Central Turner Valley, McLeod Oil Co.'s No. 4, LSD 16, Section 1-20-3w5, is reported drilling below 6,817 feet after establishing a new depth record for Canada. There is some uncertainty as to the formation in which the drill is working. It left the Madison lime and entered the Banff shales at around 5,560 feet, encountering a small production of 50 gravity crude, and there have been additional small shows of oil and gas since then. The drill has apparently been drilling for about 1,200 feet in an unidentified formation underlying the Banff shales. At one time it was thought to be the Devonian lime, but later reports indicate that the formation which the drillers have christened the McLeod sand is a member of the lower Carboniferous. The formation has become harder in recent drilling and it is surmised the drill is at last nearing the Devonian limestone. The well is reported in good shape to add considerably more depth.

Test for Light Crude

Farther north, New McDougall-Segur Oil Co.'s No. 5, LSD 14, Section 12-20-3w5, is drilling below 1,220 feet on a test of the McDougall-Segur light crude sand.

In North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is making hole below 3,950 feet. This test, a half mile north of Model's No. 1 producer, was started originally by Anaconda Oil Co. and was taken over last December by Model Oils, Ltd.

South Turner Valley

In South Turner Valley, Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, is reported drilling close to 5,000 feet and apparently in or near the Dalhousie sand. There is a chance of light crude in the Dalhousie horizon, but it is planned to continue about 550 feet to the Madison. The test is the farthest south yet drilled in the Turner Valley, being slightly less than half a mile southwest of Merland Oil Co.'s No. 1 producer. The Merland well got wet gas production in the Dalhousie, and proved a good naphtha producer when deepened by Imperial Oil, Ltd., to the Madison. Mar-Jon-Freehold's No. 1 is being drilled by Union Drilling & Development Co. of Calgary, rotary tools being used.

Hylo Oils' No. 1, LSD 12, Section 4-19-2w5, which got wet gas production late in June from the Madison lime at 5,670 feet, is reported making approximately 130 bbls. a day under proration. The well was estimated good for 11,500,000 feet of wet gas with a potential crude naphtha recovery of 285 bbls. The well has also a light crude production from the Home sands, but owing to the testing operations this production has not been taken recently.

Midwest Oil Proposals

Shareholders of Midwest Oil Co. of Calgary will meet on August 17 to deal with a proposal for reorganization which may result in the eventual testing of some of the company's Turner Valley acreage. The Midwest Oil Co. was organized about 16 years ago as a merger of a number of the early Calgary companies, including the Western Pacific Oil Co. and the Northwestern Pacific Oil Co. Two tests commenced by the original companies were continued by the new organization, Midwest's No. 1 in LSD 8, Section 31-19-2w5, and Midwest's No. 2 in LSD 3, Section 24-20-3w5. Work was eventually discontinued and later the Southern Alberta Oil Co. interests acquired an interest in the Midwest, this passing to the Dalhousie Oil Co., one of the Imperial subsidiaries. Several efforts have been made to reorganize and Midwest's No. 3 was at one time tentatively located in LSD 13, Section 12-20-3w5. Midwest Oil Co. holds some 80 acres in the Turner Valley fields. Its officers are: President, Alexander Hannah; secretary-treasurer, A. N. Harris; managing director, J. H. McLeod. Midwest's No. 1, in LSD 8, Section 31-19-2w5, was discontinued in 1918 at a reputed depth of 3,730 feet, after getting gas shows in three horizons and four oil shows, including a good show of light crude in the Home sand at 3,340 feet. The test did not reach the Madison lime, but is in a general area where several tests drilled to that horizon have got good naphtha production. Midwest's No. 2, in LSD 3, Section 24-20-3w5, is in the North Turner Valley; the well, drilled in 1914, was discontinued at an estimated depth of 3,345 feet after getting the top of the Blairmore at 2,954 feet.

Tests in the Foothills

On the Fisher Creek structure northwest of Turner Valley, Cotton Belt Mines' No. 1, LSD 5, Section 21-21-4w5, is reported to have resumed at 3,080 feet after a shutdown waiting for a new stem.

On the Moose Mountain structure, Elbow Oils' No. 1, LSD 11, Section 35-22-5w5, has resumed drilling at 3,355 feet after completing a satisfactory water shut-off.

Oil City Test

In the old Oil City Field, southwestern Alberta, the Patrick-Spence Oil Syndicate has been incorporated as the Oil City Royalties, Ltd., with head office at Calgary. The new organization, formed by Miss Theo F. Grewer of Vancouver and L. R. Patrick of Calgary, has taken over 50 acres from Patrick Oils, Ltd., and is reported working on derrick for its No. 1 test in Section 30-1-30w4. The test is to spud in this month. Rig building is in charge of Thomas Visser. The drilling outfit of Innerfold Oils, Ltd., from the Waite Valley district has been secured for the test. Oil City's No. 1 is within a few feet of the site of the Rocky Mountain Development Co.'s No 1 Lineham, which is claimed to be the first oil well drilled in Alberta.

The Lineham well, according to government records, was drilled in 1902. Water was struck at 600 and 960 feet, and slight shows of gas. Small oil shows were met at 780 feet, between that depth and 900 feet, and a further show of 39 gravity crude, apparently considerably larger, at 1,020 feet. An initial flow of 300 bbls. a day was claimed, which fell off when the tools were lost and the hole clogged with paraffin. Oil City's No. 1 will test the same producing horizon, but may be drilled deeper.

Kinsella Field

In the Kinsella Field, East Central Alberta, Northwestern Utilities' No. 1 Harvey has been finished with a measured production of 7,600,000 feet a day at 2,177 feet depth. The sand was reached at 2,148 feet. The drilling equipment has been transferred to No. 2 Harvey, in the same general area, where derrick has been up for some time. No. 2 will spud in this month.

Keho Lake Test

In the Keho Lake district, southern Alberta, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, is reported redrilling on iron at 4,829 feet, and is still about 90 feet off the old bottom at 4,920 feet. The well, after getting a show of crude in the top of the Madison at the latter depth, was cemented back to 4,800 feet to sidetrack lost tools, and is now preparing to test the show in the Madison.

Red Coulee Field

On the Montana end of the international Red Coulee structure, Askalta Oils' No. 6, NE SW NE, Section 2-37-4w, got a strong flow of gas in the Sunburst sand at 2,500 feet. The 6-inch casing has been set at this depth and the well is now drilling to the oil sand.

Steveville Test

In the Red Deer Valley, east of Calgary, Steveville Oil Co.'s No. 1, LSD 8, Section 4-22-12w4, has spudded in and is reported drilling.

Fort Norman Producing

In the Fort Norman Field, on the Mackenzie, Imperial Oil's No. 1 discovery well is reported to have been placed on production. An initial shipment of 1,000 gallons of crude oil for fuel oil purposes was made from the well to the Eldorado Mining Co., at Great Bear Lake early in July, and further shipments of 20,000 gallons were to be made as soon as tankage could be arranged. This is claimed to be the first commercial production of crude oil ever made from a well north of the sixtieth parallel of latitude. The small refining plant taken north some years ago and still at the Fort Norman wells is being put in shape to produce gasoline, and is expected to commence deliveries about August 15.

British Columbia Operations

In the Kelowna district, British Columbia, Okanagan Oil & Gas Co.'s No. 1, E half, Section 2-26-Osoyoos Survey, is preparing to recement for water shut-off. The test bottoms at 2,520 feet with a hole full of water, apparently coming from around 2,170 feet; and failure of the first cementing job was due to gas intrusion. Contract has been let to a Calgary firm for recementing. The work will likely be completed in time for a test of the oil and gas showings this month.

In the Sage Creek district, southeastern British Columbia, Crow's Nest-Glacier Oil Co.'s No. 1 is reported redrilling with diamond outfit below 3,260 feet, some 60 feet of the old bottom. The drill has been working in broken black limestone, with continued shows of gas. In the original drilling a show of light crude was met at 3,260 feet, but tools

were lost and after shooting the hole had to be cemented back and redrilled.

In the Cariboo district, Patrick Syndicate's No. 1, on the Australian ranch near Quesnel, is reported drilling below 1,600 feet.

Montana Test

On the Montana side, Blackfeet Petroleum Corp.'s No. 1, NE, Section 29-36n-12w, is reported drilling below 3,250 feet in the Kootenai formation.

Drilling in Ontario

In the north end of the D'Clute Field, Kent County, Ontario, Union Gas Co.'s No. 21, Lot 22, Concession 10, Raleigh Township, finished last week a small gasser after drilling to the bottom of the lime at 1,833 feet. The flow was about 50,000 feet a day. Later the well turned wet, and it is being pulled and plugged.

In the Dawn Field, Lambton County, Union Gas Co.'s No. 62 is reported drilling around 2,050 feet, and looks like a dry hole. Union's No. 63 has spudded in, and is drilling around 625 feet. In Sombra Township, Black Bear Syndicate's No. 1, Lot 15, Concession 13, is drilling around 150 feet.

Turner Valley Tests

In the Turner Valley Field, the Gas Conservation Board is conducting a series of tests of closed-in pressure and absolute and relative productive capacity. A group of wells in the south part of the field was tested first, and later testing was shifted to the northern section. Tests covered a 10-day period; wells outside the area under test being permitted to produce on the quota basis.

British Capital Interested

A new oil development backed by British capital is in prospect for the Alberta area west of Olds. Development will, it is expected, be handled by the Hunter Valley Oil Co., which some time ago secured extensive acreage in this section of the foothills. Campbell Hunter, the British geologist, is president and consulting engineer for the company, and he states that the structure on which the leases are located is extremely favorable.

The general area west of Olds was first tested in 1914-15 by the Monarch Oil Co. of Calgary, whose No. 1 well in this area was reputed to have been drilled to a depth of 4,500 feet. It is claimed the deep test got shows of both oil and gas. Location was in Section 3-32-6w5, about 45 miles northwest of Calgary. There appears to have been a considerable showing of black crude at 808 feet. More recently, Cartier-Majestic's No. 1 in LSD 3, Section 36-31-7w5, started to test the structure at a higher point, and at last reports was standing at 1,135 feet after getting some shows of oil and gas. It is not certain whether the Hunter Valley acreage is on the same or a related structure.

Operations at Simpson

At Simpson, Saskatchewan, Simpson Oil Co. has installed a new brine pump to handle production of its salt well in Section 9-29-25w2 and expects to soon have the property on a producing basis. The company plans to drill a second well to test the oil and gas possibilities of the Simpson area.

Michigan Fields

(Continued from Page 59)

County, which at last report had reached 700 feet.

Starting to Hunt Gas

The sixth natural gas test to be started in the Central Michigan Field was under way during the past week, pointing toward definite revival of natural gas development in this territory. The Thomas E. Currie Co. of Detroit has started operations on No. 1 MacKenzie, 660 feet from the south and east lines of the farm, in SE SE Section 34, Vernon Township, Isabella County, and about a mile southwest of producing wells. Mr. Currie heads the Peninsular Construction Co., which is bidding to lay a pipe line from the Central Michigan Field to Detroit. The Peninsular company is now making a route survey for a line from this district to Detroit. It is understood that a second test will be started by the Currie interests in a short time.

A mile northeast of No. 1 McKenzie is the main Vernon Gas Pool of seven producing wells. The well are reported to have a combined daily open flow output of about 18,000,000 feet.

The State Public Utilities Commission in Lansing will hear the application of two companies seeking authority to lay natural gas lines from the Central Michigan Field to several Michigan cities. The Michigan Natural Gas Corp. will submit its plans within a few days. According to the application a line is contemplated from the fields to Mount Pleasant, Flint, Saginaw, Bay City, Pontiac and Detroit. The Michigan Natural Gas Pipe Line application, to be heard August 12, proposes to pipe natural gas to Remus, Big Rapids, Reed City, Cedar Springs, Kent City, Casnovia and Muskegon.

Drilling Permits

Drilling permits issued follow: Columbia Oil & Gas Co., for No. 2 well, 990 feet from the south line and 990 feet from the west line of the M. F. McLaughlin farm, NE SW NW Section 15, Greendale Township, Midland County; for No. 2 well, 990 feet from the south line and 330 feet from the west line of the F. H. Taulker farm, NW SW SW Section 7, Lee Township, Midland County; Thomas E. Currie Co. and others for No. 1, located 660 feet from the south and east lines of the Mrs. Ruth Condon farm, in the center of the SE SE Section 34, Vernon Township, Isabella County; R. D. Malcom for No. 1 well, 330 feet from the north and east lines of the Malcolm-Nickerson farm, NW NW Section 13, Greendale Township, Midland County; John C. Arthurs, Inc., for No. 3 well, on the Julius and Caroline Schug farm, ? half S half SW Section 22, Vernon Township, Isabella County, and the location being 990 feet from the south and east lines of the lease; Talbot Oil Co. for No. C-3 well, 990 feet from the south line and 330 feet from the east line of the State of Michiah land, NW SE SE Section 10; Cedar Creek Syndicate for a test 330 feet from the south and west lines of the L. P. Haight farm, SW SE SW Section 9, Muskegon Township, Muskegon County; Columbia Oil & Gas Co., 990 feet from the north and west lines of the George Harnick farm, SE NW NW Section 15, Greendale Township, Midland County; Edward Stewart and others, 990 feet from the north line and 330 feet from the east line of the John Opperman and others farm, SE NE SE Section 12, Greendale Township, Midland County.

Permit issued to Johnson Oil & Refining Co. for Frank Cigak farm has been cancelled, and a new one substituted for No. 1 well, 1,020 feet from the north line and 200 feet from the east line of the A. F. Sippy farm, NE SW Section 27, Leavitt Township, Oceana County.

NEW BOOK ON FINANCE

"Oil Finances at a Glance" is the title of a report published by Alexander B. Morris, petroleum engineer, of 624 South Boston Avenue, Tulsa. This is a comparative analysis of the 1931 annual reports of 27 leading American oil companies, those chosen representing about 70 per cent of the entire industry in the United States.

In this study, the author has rearranged both balance sheets and earnings statements so that valid comparisons can be made, not only as between companies, but as between any company and the industry as a whole. To facilitate this, there is presented a table of ratios, showing for each company, and for all companies, the exact position in respect to each of a dozen different functions of financial management. And as very few of these companies, and those chiefly the less important ones, issue quarterly statements, this compilation will remain substantially the latest available information for the industry until the publication of the annual reports for the current year, sometime late next spring.

Copies of this report are for sale by the author at $3 per copy.

Oil and Gas Pool Map

The Oil and Gas Journal has compiled, from information furnished by its branch editorial offices throughout the United States and Canada, a large wall map showing all oil and natural gas pools in the United States and Canada.

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8-11-32

Outside Well Proves Another Hobbs Pool Unit; Oregon Wildcat Reported Showing Gas

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Aug. 8.—The Midwest Refining Co.'s No. 29 Turner, in the southeastern part of the Hobbs Pool, an outside well that proves up another unit, has been completed and looks as if it will be good for 5,000 bbls. per day. The New Mexico Tax Commission has agreed not to tax nonproductive oil lands until the legislature meets. One new location was made in the Artesia area.

The allowable outlet for the Hobbs Pool in New Mexico was reduced to 25,000 bbls. per day for the first half of August, a reduction of 4,500 bbls. per day. The daily allowable for the last half of July was 29,500 bbls. The new allowable is equal to an average of 157 bbls. per well for the 159 wells in the field. The potential of the field as of August 1 was 1,005,658 bbls. or equal to an average of 6,388 bbls. per well. Pipe line runs in July aggregated 908,092 bbls., bringing the total since proration went into effect up to 24,890,680 bbls.

Two wells in the Greasewood area in Colorado are near completions and have disclosed some puzzling geological results. Ramsey Petroleum Co., in preparing to go ahead with its New Raymer test and a rotary operation in Elbert County, is in prospect. One new location in Larimer County and one well abandoned in Jefferson County were announced.

The Mutual Oil Syndicate is preparing to drill a third well on the Midway Dome in Wyoming. Continental Oil Co. has a small completion in the Lakota in the Big Muddy and the Osage Field reported a 100-bbl. well. A show of oil in a Crook County wildcat is to be tested. The Grass Creek black oil wells are shut in after running 85,000 bbls. of crude.

In Montana, one well in the Whitlash district in Liberty County was abandoned and a new operation in Hill County is spudding. There is a small increase in drilling in the Kevin-Sunburst Field.

A wildcat in Oregon is reported showing some gas and is shut in for a representative of the Government to inspect.

NEW MEXICO

Lea County

Midwest Refining Co.'s No. 29 Turner, C SW NW, Section 34-18-39, in the southeastern part of the Hobbs Pool, was completed at 4,180 feet and looks like a 5,000-bbl. well. The 8⅝-inch was cemented at 3,970 feet with 150 sacks. Top of the white lime was at 4,016 feet. Same company's No. 11 Terry, C NE SE, Section 9-19-38, is drilling at 2,752 feet in the red beds. Top of the salt was at 1,775 feet. Skelly Oil Co.'s No. 1 Turner, SE NW, Section 34-18-38, plugged back from 1,640 feet to 1,314 feet and is redrilling.

In the northern part of the pool, Gypsy Oil Co.'s No. 2 Graham, NE cor., Section 24-18-37, is drilling at 3,890 feet in anhydrite. Top of the brown lime was at 2,820 feet. First gas was at 2,825 feet and there was a show of oil and gas at 3,197-3,205 feet. Empire Gas & Fuel Co.'s No. 4 Boon Hardin, NW cor., Section 19-18-38, is drilling at 2,010 feet in salt and red rock. Shell Petroleum Corp.'s No. 1 Lizzie Rice, SE cor., Section 13-18-37, is bottomed at 2,786 feet and preparing to run pipe. It topped anhydrite at 1,505 feet and the salt at 1,635 feet. Base of the salt was at 2,580 feet.

In the Lea area, The Texas Company's No. 3-A State, C Lot 2, Section 2-21-33, is bottomed at 1,707 feet where 8¼-inch was cemented with 575 sacks. Top of anhydrite was at 1,693 feet. Contract has been let to the Stovall Drilling Co. to complete with cable tools from 1,707 feet to bottom.

In the Eunice area, Tidal Oil Co.'s No. 1 State, C SW NE, Section 8-21-36, is bottomed at 2,857 feet. The 9⅝-inch was cemented at 2,852 feet with 600 sacks.

Eddy County

Flynn, Welch & Yates' No. 63 State, SE cor. NW, Section 10-19-28, southeast of the Artesia Pool, is building rig. The location is one-fourth of a mile northwest of No. 62 State, completed recently for 25 bbls.

Leonard & Levers' No. 7 State-Levers, C SW SE, Section 20-17-29, Jackson area, is shut down at 2,268 feet. It had 100,000 feet of gas at 2,170 feet. It probably will be drilled 500 feet deeper for oil. W. A. Scott's No. 1 Kaiser, NW SE, Section 7-18-27, Artesia area, is bottomed at 1978 feet in lime. The 6⅝-inch was lowered to 925 feet and mudded to shut off water.

William Dooley, secretary of the New Mexico Oil Protective Association, has returned to Artesia from Lovington where he went to attend a hearing by the State Tax Commission on protests against the proposed taxing of nonproducing oil and gas leases. At the meeting Tax Commissioner Beal announced the tax will be passed up until the next session of the legislature.

Chaves County

R. D. Compton's No. 1 Emerson, SW SW SE, Section 20-10-24, near Roswell, is bottomed at 440 feet and drilling. At 418 feet 10-inch was run to shut off artesian water, but upon drilling 10 feet deeper more water came in and the pipe was pulled and the hole reamed to lower and make a shut-off. The water was encountered at 212-250 feet and 300-303 feet. There was a small show of oil at 369-374 feet.

DeBaca County

Landowners Oil Co.'s No. 1 McAdoo, SW cor. NE, Section 16-1s-27, Buffalo Creek, is shut down at 5,014 feet waiting for 6⅝-inch pipe.

COLORADO

Morgan-Weld Counties

The fate of two wells in the Greasewood area in northeastern Colorado probably will be known within a few days. Manning & Terry's No. 1 Niles, C SE NE, Section 13-6n-61, a half mile east of Continental's No. 1 Briggs, the nearest producer, is bottomed at 6,728 feet total depth and cemented 7-inch at 6,589 feet with 150 sacks. Mud is being bailed out to test and then the plug will be drilled. This well bottomed the Niobrara at 6,325 feet. A show of oil was found in sand at 6,641 feet and a saturated core was taken at 6,645-49 feet. The formation between 6,611 and 6,650 feet is believed to be the remnant of the Muddy in which there were several streaks of sand. The hole entered a fine white water sand at 6,709 feet, believed to be the Dakota. This was plugged off to make a test of the Muddy.

Ohio Oil Co.'s No. 1 Batters, C SW SW, Section 7-6n-60, a half mile northeast of No. 1 Niles, cored a few inches of sand topped at 6,683 feet and found a show of oil and gas. The 7-inch was then run to 6,683 feet and cemented with 350 sacks. It will stand a few days before drilling in. These two wells which are testing the east side of the Greasewood area are somewhat puzzling in results. No. 1 Niles ran about 80 feet lower than No. 1 Briggs on the Timpas, but was a few feet higher on the Muddy. The difference in the interval between the lime and the sand in the Niles well indicated a faulted or some other unexpected condition. No. 1 Butters, on the contrary, ran higher than No. 1 Briggs on the Timpas lime and the interval between the lime and sand was greater than in the Niles well. The chances are considered about equal for the Butters well to be a producer.

To the northeast of these operations, Tulsa-Fort Morgan Petroleum Co.'s No. 1 Athens, C NE NE, Section 24-8n-59, New Raymer area, is bottomed at 2,650 feet and underreaming 10-inch. It appears to be running several hundred feet higher than both of the wells to the southeast and it is believed to be close to the main sand in the Hygiene formation, a fairly reliable marker.

About 5 miles south of No. 1 Anthese, the Ramsey Petroleum Co. is expected to go ahead within a few days in its plans to drill a rotary test. The location has not been announced, but probably will be in Section 15-7n-59. This operation has been delayed on account of a shortage of water for a rotary outfit. Ohio Oil Co. is drilling two water wells on this section under contract and it appears enough water has been found to insure at least daylight operations. This will be a joint operation with the Danciger Oil & Refining Co. and Manning & Terry.

Elbert County

There is an unconfirmed report to the effect that a deep test is to be drilled with rotary tools on the Botts block of 60,000 acres in Elbert County within a few weeks. The Botts interests drilled a well several years ago in the SE cor., Section 1-8s-59, which is standing at a total depth of 3,500 feet with all casing pulled except 2,000 feet of 12½-inch. Recently John H. Wilson, of Golden, was in charge of core drilling in this district to work out the structure. Tulsa-Fort Morgan Petroleum Co. had an option to take over this block, but it is understood the Botts interests have made other arrangements for a test.

Lincoln County

Eastern Colorado Oil Co.'s No. 1 State, SE cor. NW, Section 36-14-57, south of Hugo, which has been held up for months at 3,425 feet with a bad fishing job, is reported to have sidetracked the tools and to have made some additional hole. It reached a hard caprock in which only 1 foot of hole per day could be made. This cap is supposed to be over the Dakota sand and to be only a few feet thick. M. K. Mouser, president of the company, who was in personal charge, came to Denver to enter a hospital, but at last reports had returned to the well to take charge. Except for a little iron to be drilled up, the hole is in good shape. It has had several good shows of oil and gas just above the present depth.

Larimer County

C. Leonard Smith and others' No. 1 Union Pacific, SW SE SW, Section 31-12n-69, on the Sand Creek Dome, is a new operation which is spudding at 90 feet. It is about one-third of a mile east of the same firm's No. 1 State, SE cor., Section 36-12n-70, which is shut down at 760 feet. The hole is not abandoned, but may be completed later. The rig is being used to drill No. 1 Union Pacific. This is a well-defined small dome on which the Dakota is eroded. The first well had several small shows of oil and gas.

Washington County

C. M. Smith and others' No. 1 Middlemist, SE SW SE, Section 14-4s-56, Middlemist Dome, is shut down at 1,600 feet waiting for 10-inch casing.

Jefferson County

Ruby Hill Oil & Gas Co.'s No. 1 Braden, SE cor., Section 24-4s-69, near Denver, is reported abandoned at 4,280 feet. The derrick was moved away by the owner a month or more ago, but the operators had planned to buy another and resume. The 6⅝-inch was cemented at 3,950 feet, but the hole was caving badly below that depth and it shut down until a string of 4¾-inch could be obtained.

Las Animas County

P. W. Harr and others' test on the Gray Creek Dome has changed its location from the Cordova tract in Section 15-33-63, to the Schneider tract in Section 10-33s-63, and new location has been staked in the SW SE SE of the section. It is moving in. Same firm's No. 1 Barela, NW cor. NE, Section 33-33s-62, Garcia Dome, is moving in materials.

Delta County

Black Canon Oil & Gas Co.'s No. 2, Lot 12, Section 5-15s-94, near Delta, has installed new rig and is drilling at 371 feet.

Rio Blanco County

Magnolia Petroleum Co.'s No. 1 Titley, NW cor. SW, Section 15-2s-96, Piceance Creek, is drilling at 876 feet in brown lime, and California Co.'s No. 1 California-Raven, NW SE, Section 30-2n-102, Rangely Dome, is fishing for drill pipe at 5,664 feet.

Routt County

The Texas Company's No. 4 Carstarphen-Irwin, NE NW NW, Section 5-6n-86, Tow Creek, is drilling and swabbing at 3,735 feet.

WYOMING

Natrona County

Mutual Oil Syndicate's No. 2 C SW SE, Section 14-35-79, Midway Dome, has drilled up iron in the hole after reducing to 3-inch drill stem and is making hole below 5,780 feet with the Muddy expected at 6,040 feet. As soon as this well is completed work will start on No. 3. Same firm's No. 1, the discovery well, is now making from 177 to 214 bbls. of pipe line oil per day, tests showing less than one-half of 1 per cent water.

Lakota Oil & Gas Co.'s No. 6, NE SE SE, Section 36-36-82, North Casper Creek, cut a sand at 1,013-1,107 feet, supposed to be in the base of the Mowry, which is estimated good for 3,000,000 to 5,000,000 feet of gas per day with a rock pressure of 227 pounds. The gas is sweet and contains very little moisture. The location is 1,500 feet from the nearest producer. Same company's No. 5, NW NE, Section 1-35-82, is ready to spud. These are two of a series of 10 wells to be drilled to the gas horizons on locations made recently by C. T. Lupton, of Denver. The company now has two oil wells and two gas wells and is considering plans for building a cracking

plant at Casper to handle this grade of black oil. It has 9,000 bbls. in storage.

Converse County

Continental Oil Co.'s No. 30 Glenrock Sheep, SW SE SE, Section 4-33-76, Big Muddy, was shot with 5 quarts at 4,312-21 feet in the Lakota and will make a small well. It has not yet been gauged, but is estimated at 75 bbls. per day. It is a north offset to Ohio Oil Co.'s No. 5 Jones, the discovery well in the Lakota, which made 345 bbls. initially.

Ohio Oil Co.'s No. 25 Kinney, SE SW SE, Section 4-33-76, a west offset to the Continental well, is redrilling at 3,555 feet. These two operations apparently are in a faulted area. The Ohio's well found a good show of oil in a stray sand at 2,600 feet, but this was mudded off to continue to the Lakota. Another well to tap the stray will be drilled.

Converse Oil & Gas Co.'s No. 1 Carlson, C SW SW, Section 27-33-73, Alkali Creek, has cleaned up a fishing job and is resuming at 2,500 feet. It is planned to go to 4,500 feet, if necessary. The 10-inch was cemented at 2,020 feet.

Weston County

One completion in the Osage Pool was reported in Lambie Oil Co.'s No. 8 Julius Bock, SW cor. NW, Section 14-46-64, which found the sand at 2,042-52 feet and flowed 100 bbls. the first 24 hours. Homestake-Osage Oil Co.'s No. 3, CSL SE NE, Section 15-46-64, is drilling at 500 feet, and General Oil Co.'s No. 1, SE SW NW, Section 15-46-64, is drilling at 2,000 feet. Wyoming-Dakota Oil Co.'s No. 1, SE SW NE, Section 15-46-64, is drilling at 1,400 feet, and Tug Oil Co.'s No. 2, NE NW SW, Section 15-46-64, is rigging up. Federal Oil Co.'s No. 3, SE NE SE, Section 15-46-64, is feeling for the top of the pay, and the Central West Oil Co.'s No. 1, NE cor. SW, Section 15-46-64, is fishing. Riggs Oil Co.'s No. 2, CEL SE NE, Section 16-46-64, is drilling at 2,350 feet, and West Osage Oil Co.'s No. 4, CEL W half, Section 13-46-64, is drilling at 400 feet. Yellowstone Oil Co.'s No. 3, SE NE NW, Section 23-46-64, has rig on location.

Julius Peters and others' No. 1 Witzell, SE cor. NW, Section 36-46-64, Fiddler Creek(to the southwest of the Osage Pool, is drilling at 4,440 feet, and the Gose Oil Syndicate's No. 1, NE cor., Section 28-47-63, Soda Creek, is fishing at 5,050 feet after installing new cable.

Crook County

McWethy and others' No. 1, Section 1-49-66, on the Wind River structure, 7 miles north of Thornton, an operation not heretofore reported, picked up the Muddy sand at 530 feet and had a showing of oil and gas. It then shut down for an underreamer to lower pipe which will be set before drilling into the sand. The nearest production is in the Wakeman Field, 5 miles away, which produces from the Wall Creek.

St. Onge Oil & Gas Co.'s No. 1, SW NE SE, Section 20-53-61, Redwater structure, 18 miles northeast of Sundance, is drilling in the red beds at a shallow depth.

Big Horn County

W. O. Taylor and others' No. 1 Hoskins, Lot 5, Section 25-56-97, Byron district, is preparing to spud. The location is on a small island in the Shoshone River and operations have been delayed by high water which washed out some bridges. These interests have 720 acres on the structure. A rotary will be used with the Madison as the objective.

Fremont County

The Texas Company's No. 2 State-Ridgway, SE SW SW, Section 36-34-95, Alkali Butte, is drilling at 2,095 feet. Ward Oil & Gas Co.'s No. 2, NE cor., Section 28-34-90, Dutton Basin, is drilling at 3,330 feet in a sticky gumbo that indicates it is near the first Frontier formation.

Sweetwater County

Wyoming-California Petroleum Co.'s No. 1, SE SE, Section 23-17-104, Baxter Basin, is drilling in broken sandy shale at 3,730 feet with a small show of gas.

Sublet County

California Petroleum Corp.'s No. 7-H-2, Lot 10, Section 3-26-113, LaBarge, is drilling at 865 feet.

MONTANA

Carbon County

The Ohio Oil Co. is going ahead with its No. 9 Sounders, C NE SW, Section 2-7s-21, Dry Creek, for which location was made and cellar dug a year ago. Rig has been completed and it is about ready to spud. Same company's No. 8 Caldwell, SE SW NE, Section 12-7s-21, on the east side of the field, which is being carried down to test the sands in the Pennsylvanian, is drilling at 6,674 feet in the red beds. Its No. 7 Robinson, C SE SE, Section 3-7s-21, is drilling at 5,616 feet and is through the Dakota and on its way to the Lakota. It had a small show of gas in the Dakota. Ohio's No. 1 Bowman, C SE NE, Section 4-7s-21, is drilling in the second Frontier at 4,607 feet and showing some gas.

Carbon Oil & Gas Co.'s No. 1 Armstrong, SW cor. NW, Section 7-7s-22, is again cementing in an effort to shut off bottom water. It flows about 60 bbls. of oil per head at irregular intervals. Its No. 1 McMinn, NW SW SW, Section 7-7s-22, is shut down at 4,479 feet.

Liberty County

Casper Oien's No. 1 Hicks, C SE NE, Section 26-37-4e, Whitlash district, one-third of a mile southeast of the discovery well, was abandoned at 1,903 feet. This narrows down the proven acreage in the new pool to less than a quarter of a section. No deep test is being drilled to formations below the Sunburst. R. C. White's No. 1 Hicks, C NE NE, Section 26-37-4e, one-third of a mile to the east of the discovery, is drilling below 2,212 feet.

Toole County

There is a slight increase in drilling in the Kevin-Sunburst Field. Bistate Oil Co.'s No. 5 Peterson, NE NW NW, Section 11-34-1w, is drilling at 1,285 feet, and Imperial Natural Gas Co.'s No. 2, SW cor. NW, Section 21-35-1w, is spudding. Pfabe-Engleking's No. 3 Seabrook, C SE SE, Section 19-35-2w, is drilling at 1,000 feet.

In the Border Field, Askalta Oil Co.'s No. 6 Farbo, NE SW NE, Section 2-37-4w, the only active operation in the field, is drilling at 2,100 feet.

Teton County

California Co.'s No. 1 Sullivan, NW NE NW, Section 34-27-7w, Bynum district, is drilling below 3,630 feet.

Glacier County

R. C. Tarrant's No. 1 Reickhoff, SE SW NE, Section 3-34-6w, Cut Bank district, is drilling below 300 feet. It is 1½ miles north of his No. 1 Haglund, which swabbed 115 bbls. initially from sand at 2,848-94 feet. The Texas Company's No. 1 Peterson, SW NE SE, Section 22-36-5w, is drilling at 1,965 feet. Milk River Petroleum Co.'s No. 1 Blackfeet, SW NE NE, Section 28-36-12w, Milk River district, is drilling at 3,250 feet in the Kootenai formation.

Cascade County

Carles Merz and others' No. 1 Sheffelt, SE NW, Section 4-21-4e, Black Horse Lake, set 6¼-inch at 1,720 feet, and Buscher & Cassidy's No. 1 Johnson, NE cor. SE, Section 19-22-3e, Benton Lake, is drilling at 1,465 feet.

Hill County

Fargo Oil & Gas Co.'s No. 1, Section 29-37-15e, Signal Butte district, has spudded. E. J. Lambert, of Tulsa, is president of the company and R. H. Howard is in charge of the operation.

Fallon County

McDonald and others' No. 3, C SW, Section 28-8n-60, Cedar Creek, is shut down at 1,762 feet.

Phillips County

St. Cloud Oil & Gas Co.'s No. 1, SW NE, Section 20-24-24, Guinn district, which is looking for gas in the Eagle sandstone, is drilling at 500 feet.

Broadwater County

Capitol Oil & Gas Co.'s No. 1, SE NW, Section 7-8n-1e, Winston district, is drilling at 2,303 feet.

WASHINGTON

Ohio Oil Co.'s No. 1-A Robinson, Section 5-17n-9w, Gray's Harbor County, is standing with 13⅜-inch cemented at 2,312 feet.

OREGON

An unconfirmed report says the United Development Co.'s No. 1 Doorman, 3 miles southwest of Ontario in Malheur County, has a show for approximately 6,000,000 feet of gas from sand at 1,800 feet and is shut in awaiting arrival of an engineer from the U. S. Geological Survey. The hole is cased within 4 feet of the bottom. It had water and some gas at around 1,600 feet.

UTAH

Utah Southern Oil Co.'s No. 1 Balsey, C NE NE, Section 31-23-21, Grand County, is drilling at 5,820 feet in salt and shale. Brendell Oil & Gas Co.'s No. 1, SE SW SE, Section 4-22-19, Grande County, is drilling at 3,200 feet, and Longwell Petroleum Co.'s No. 1, SE SW SE, Section 35-3n-5e, Summitt County, is shut down at 200 feet for 15½-inch to shut off a cave.

SOUTH DAKOTA

Chadron-Osage Oil Co.'s No. 1 Moody ranch, NE cor. SW, Section 6-12-6e, Fall River County, is drilling below 3,000 feet. Wytex Oil Co.'s No. 2 Hamilton, Section 38-8n-1e, Butte County, is drilling at 600 feet. Barker Structure Drilling Co.'s No. 3 Adams, NE SW, Section 34-6s-2e, Custer County, is shut down at 1,617 feet with water in the hole and a show of oil and gas. It will be drilled a little deeper.

Oklahoma Fields

(Continued from Page 50)

Turner, NE cor. NW SE Section 22-11-3w, made 2,134 bbls. of oil in five hours from 6,440-6,520 feet.

Osage County

Lewis Production Co.'s No. 1 well, NW cor. SW Section 27-24-7, is a rig on the ground.

Pottawatomie County

Vivian Oil & Gas Co. and others' No. 1 Lucas, NW cor. Section 2-6-4, made 468 bbls. from sand at 4,265-68 feet. Magnolia Petroleum Co.'s No. 1 Martin, SE cor. NE SW Section 34-7-4, made 51 bbls. from 3,500-15 feet. Total depth, 4,326 feet. Arrow Drilling Co.'s No. 1 Noble, NE cor. SE SE Section 26-6-4, made 50 bbls. in 12 hours from 2,878-92 feet. Total depth, 3,804 feet.

Pontotoc County

Superior Oil Co.'s No. 4 Boyd, SE cor. NE NW Section 32-5-5, is a location. Vanderslice's No. 3 Bolan, SW cor. NE SW Section 17-2-4, made 6 bbls. from 283-87 feet. Same operators' No. 1 Meredith, NE cor. SW Section 17-2-4, made 5 bbls. from 296-308 feet.

Seminole County

Stanolind Oil & Gas Co.'s No. 3 Jones, SE cor. NW Section 20-9-6, is a location. Spears Drilling Co.'s No. 1 Phillips, NE cor. SE SW Section 17-9-6, was abandoned at 2,855 feet. Mid-Kansas Oil & Gas Co.'s No. 6 Davis, NE cor. NW Section 30-8-8, made 110 bbls. from 3,745-95 feet.

Stephens County

Gilberts and others' No. 3 Green, SE cor. NE Section 2-2s-8w, made 50 bbls. from 1,453-64 feet. G. Pace's No. 1 A. Watkins, SW cor. NW NW NW Section 22-2s-7w, made 125 bbls. from 1,735-46 feet. McAllister's No. 1 Blake was abandoned at 2,137 feet.

Wagoner County

E. W. Ladd's No. 1 Atkins, CSL NW NE Section 14-17-16, was spudding.

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Read the Classified Ads on page 87

Five Completions in the North Government Wells Pool Now Give It Total of 15 Producers

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Aug. 8.—Five completions in the North Government Wells Pool in Duval County have brought the total number of producers to 15. All of the wells thus far have been completed with an initial production of 500 to 3,500 bbls. per day and arrangements are being made to run more of the production. The Magnolia Pipe Line Co., which has a line near the field, is putting its pump plant at Fant City back on commission. This will raise the capacity of its Laredo-Luling line from 8,000 bbls. daily up to 12,000 bbls. daily.

The Railroad Commission has issued proration orders for the whole Government Wells district making the maximum for a well on a 20-acre tract in the North Government Wells district 260 bbls. of oil daily and limited to a maximum of 1,000 feet of gas per barrel of oil.

All of the recent completions have been inside completions or else offsets to producers, but the Petroleum Finance Corp.'s (Luse & Russ) No. 1 Hahl, a half mile south of production, showed on a drill stem test 4 fourbles of oil and it has set casing. It looks like a half-mile extension making the field a good 2 miles long.

The proration rules for the North Government Wells Field and the Sarnosa Pool on the south end are identical. They provide that in the future wells must be spaced at least 660 feet apart and not closer than 330 feet to a property line; all tests must be cored or ratholed into the pay and casing set within 15 feet of the top of the sand; a maximum of 1,000 feet of gas per barrel of fluid; tubing not larger than 2½ inches.

Wells are allowed a flat 40 bbls. daily each and an additional 9 bbls. for each acre from 1 to 4 acres, 10 bbls. per acre additional up to 9 acres and 11 bbls. per acre additional up to 20 acres. One well on 20 acres would be allowed 260 bbls. per day production.

In the south extension wells are limited to 200 bbls. each and 1,250 feet of gas per barrel of fluid and no well to produce more than 250,000 feet of gas per day unless the gas is utilized in some nonwasteful manner and recording meters are required on all wells.

Only one completion was made in the Sarnosa Field at the south end of the Government Wells district. It was the Smith & Capps' No. 2 Duval County Ranch Co., an inside location and it came it for an estimated 500 bbls. daily at 2,419 feet.

It will take some additional drilling to prove who has the right theory as to where the production is and how these pools will be developed. The Texas Company is drilling the No. 1 Brown due north and the No. 2 Ruiz due east of production and these tests will tell much as to what connection the Sarnosa Pool has with the south extension of the Government Wells Pool.

Tuleta Pool

Three tests are started and a fourth location made in the new Tuleta Pool in Bee County. The Texas Company's No. 1 Cox is a west offset to the discovery well; Coquat & Hawn are starting the No. 1 Allen 1,000 feet south of the discovery well and C. R. & M. and John O'Neil are starting the No. 1 Harris 1,000 feet east of the discovery well. Also Nichols and C. R. & M. who brought in the discovery well made location for their No. 2 Harris.

It is understood that there is a possibility that the discovery well will be deepened to find out how thick the sand it. It stopped 4 feet in the sand. Gauged in the past week the discovery well on three-quarter-inch choke makes 8,000,000 feet of gas and 245 bbls. of oil. On half-inch choke 3,000,000 feet of gas and 145 bbls. of oil. There is likely to be an excess of gas in this new field and there is talk of laying a gas line to the old Pettus Field 3 miles north and using this excess gas to repressure the old field. The idea is meeting with favorable response. Last week's gauge of the discovery well showing 3,000,000 feet of gas to 145 bbls. of oil is more than 20,000 feet of gas to the barrel and on three-quarters-inch choke the showing is still worse. At present no gas is going to waste as it is used for fuel in the field, but with the completion of additional wells there will be an excess of gas.

There is an air of expectation in the field that this new pool is going to be a good sized one, larger than the old Pettus Field. This is chiefly on the theory that four wells drilled on all sides were edge wells on the structure.

Neal and others have abandoned at 5,070 feet the No. 1 Pettus several miles northeast of the Pettus district in Goliad County. In southern Karnes County, a few miles north of the Pettus Field. Pickett's No. 1 Meyer which has been standing at 3,422 feet is to be deepened.

One completion is due in the North Pettus Field this week, two are due in the west extension and one is due in the Cosden Pool. The North Pettus Field has consisted of three wells for about two years. One of the tests, the United Production Co.'s No. 13 Ray, has been producing about 300 bbls. daily continuously and the two other wells are almost as good.

Balcones Fault Zone

The C. J. Webster Oil & Gas Co.'s No. 1-A McCrory, now completed, is flowing by heads and making around 400 bbls. of oil a day when allowed to produce to full capacity. The next move is getting a market and it is understood some independent refineries are bidding for the oil. Only a short line will be necessary to get the production to a loading rack on the Katy Railroad at Dale or to the terminus of the Grayburg Oil Co.'s pipe line from the Luling Field to San Antonio and a survey was to be made this week by Webster to get the exact amount of line necessary to lay in either direction. If a connection is made with the Grayburg the oil would be run to a refinery in San Antonio. In the meantime another test is to be started at once. Location is being made this week, with the probability that still another rig will be brought in and the two tests drilled at once.

In the Dunlap Field northwest of the town of Luling there is almost no change within a week except that the Hadley No. 1 Nugent, a little south of the discovery well, has been abandoned at 2,404 feet in the Buda. Bob Rose is still working with the No. 1-B Walker which is showing a lot of oil and unable to lower the fluid to below 700 feet of the top. It is a mile northeast of the discovery well and promises to be the third producer when completed.

In the Sal-Mar Field in Guadalupe County, R. R. Ogden's No. 1 Zunker, a little northeast of the discovery well, is dry in the chalk from which formation the discovery well produced and it may be carried to the Edwards. This is the second test to reach the pay in the field other than the discovery well. The other is the Wormser No. 1 Pfullman, 450 feet west of the discovery well, which failed to produce in the chalk and was carried to the Edwards, where it tested sulphur water. There are two other locations, one north and one south of the discovery well, which have derricks up.

New Activity Seen

New locations and new evidence of activity are seen in the Balcones Fault zone. M. W. Eiser spudded in his test in northern Milam County for an Edwards lime test. Three new tests are being started in Bastrop County and others started and blocks being collected in both Bastrop and Caldwell Counties.

Probably all will be Edwards lime tests. Parsons & Mayfield have derrick up for No. 1 Carroll a little north of the town of Bastrop, Properties Trading Co. is starting the No. 1 Freitag in the P. Conley Survey in Bastrop; Reed and Ogden are starting a test southwest of Bateman, and Mrs. Bennett is blocking acreage at Red Rock. For weeks there has been no active drilling in Bastrop County.

In Caldwell County Cargill and others are starting the No. 1 Dameron in the Dillard Cooper Survey south of Lockhart and two wildcat blocks are being assembled in other parts of the county.

In western Lee County Paton Brothers at 5,595 feet in the No. 1 Turner were still in Taylor marl. This is to be an Edwards lime test, or to 6,000 feet.

Elsewhere along the Balcones additional new locations are announced, the first in some time. Rowan & Hope and Phillips Petroleum Co. are starting the No. 1 Irby 10 miles east of Goliad, in Goliad County. Luling Oil & Gas Co. is starting the No. 1 Dubose in Gonzales County in the F. R. Whitner Survey. Etheridge is starting the No. 1 McCowen-Dickinson in southern Atascosa County about 5 miles north of the new Jacob Pool in northeastern McMullen County.

The South Texas Oil Co. (Philip Rosenberg) has two rigs running in the new field. Mr. Rosenberg opened up in Webb County 3 miles southwest of the Carolina-Texas Pool. It has completed a shallow gas well at 370 feet for gas supply and completed two additional 150-bbl. wells, making a total of four producers in the field. Additional locations have been made.

In Kleberg County the Carter's No. 1 Simmons which stood for some time at 3,205 feet waiting for water has resumed drilling.

Wildcat Operations in Southwest Texas

Week Ending August 5

Company, farm and location—	Remarks:
ATASCOSA COUNTY	
American Central Oil Co.'s No. 2 Mary McConnell, 150 ft. W of E line, 300 ft. S of No. 1, Blk. 138, W. C. M. Baker Sur., 3 miles W and 6 miles S from Somerset	T.D. 1,660 ft.; standing.
Etheridge et al's No. 1 McCowen-Dickinson, Campbell-Berry Sur.	Location.
Glen Mathis' No. 2 Mrs. C. Martin, 100 ft. SE of No. 1	T.D. 2,930 ft.; standing.
BANDERA COUNTY	
F. A. Brown's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 70 ft.; drlg.
BASTROP COUNTY	
Parsons & Mayfields' No. 1 Carroll, N of town of Bastrop	Derrick.
Properties Trading Co.'s No. 1 Henry Freitag, 400 ft. from SE line, 1,800 ft. from NE line of P. Conley Sur.	Location.
BEE COUNTY	
Fitzgerald & Pryer's No. 1 Albert Johnson in M. Alcorio Sur.	Location.
Howeth & O'Neal's No. 1 King ranch, 660 ft. from N and W lines of Kleberg 140-acre tract in Robert Stevenson Sur.	T.D. 350 ft.; drlg.
C. F. Nichols' No. 1 Kimball, 225 ft. N, 40 deg. W of Grayburg Oil Co.'s No. 1 Kimball	Drlg.
BELL COUNTY	
Alex Krause' No. 1 W. P. Edds, 650 ft. from S line, 150 ft. from W line of 100-acre tract in M. Moreno Sur.	T.D. 500 ft.; S.D.
BEXAR COUNTY	
Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio	T.D. 1,040 ft.; set 4½-in. csg.
S. W. Blount's No. 1-A S. A. Land & Dev. Co., 10 ft. from No. 1 in I. Peres Sur.	T.D. 900 ft.; no report.
Eckert et al's No. 1 Edwards, 150 ft. to N and W lines of farm in Martinez Sur.	T.D. 1,930 ft.; drlg. in Edwards.
Moore-Jauer's No. 1 Holly R. Ellison, 2,916 ft. from E line, 1,500 ft. from S line of farm in T. York Sur.	T.D. 1,953 ft.; standing.
Dr. Ewell Neil's No. 1 J. Watson, 500 ft. from W line, 1,700 ft. from S line of B. Martinez Sur.	T.D. 2,495 ft.; in Edwards dry.
Jones & Voltz' No. 1 Bonkowsky, 150 ft. to N and W lines of William McMenenes Sur., 12 miles E of San Antonio	T.D. 907 ft.; standing.
Schneider, Rees et al's No. 2 Claussen, 12 miles NE of San Antonio	T.D. 1,330 ft.; S.D.
C. J. Webster Oil & Gas Co.'s No. 1 San Antonio Suburban Irrigated Farms, 200 ft. from S and W lines of Farm Lot 2, Blk. 49, in SW Bexar County	T.D. 720 ft.; drlg.
BROOKS COUNTY	
Ed East's No. 1 A. Garcia, 600 ft. from N and E lines of 2,168-ac. tract in SW part of county	T.D. 1,560 ft.; abnd.
M. P. Evans' No. 1 J. M. Martinez, 200 ft. from N and W lines of Blk. 11, Sec. 6, La Encantada Sur.	T.D. 1,412 ft.; drlg.
CALDWELL COUNTY	
Cargill et al's No. 1 Dameron, 150 ft. from N and W lines of 72-5-ac. tract in Dillard Cooper Sur.	Location.
DE WITT COUNTY	
J. F. Richardson's No. 1 Virginia Taylor, 330 ft. from SE line of tract, 330 ft. NE of Minnehuila Creek	T.D. 3,300 ft.; standing.

(Continued on Page 65)

Bridgeport Machine Co. Adopts New Rental Plan

A new policy with reference to the rental of oil field tools has been adopted by the Bridgeport Machine Co., Wichita, Kans. It has been the custom of rental supply houses to fix all rental charges on a three-day minimum basis. The abandonment of this three-day minimum rental period and adoption in its stead of a six-day minimum gives the oil operator twice the number of days to use a rental tool. The company has gone still further to accommodate itself to the prevailing conditions by reducing its minimum rental rates from 35 to 50 per cent for the six-day period below the rates charged for the old three-day minimum.

The new six-day rental minimum is only one among many of the innovations adopted during the past two years by independent supply companies in an effort to be of greater service to the oil industry generally, and it indicates the resourcefulness and vision of the men in control of this important branch of the industry.

STOP ASPHALT PRODUCTION

CASPER, Wyo., Aug. 6.—The Embar-Tensleep oil wells of the Midwest Refining Co. and the Ohio Oil Co. in the Grass Creek Field which were opened temporarily a few weeks ago are shut down again after running 85,000 bbls. to the refinery at Greybull. Increased demand for road oil is one of the reasons given for running this batch of crude. The Federal government's reconstruction program calls for considerable road work throughout this territory between now and June 30, 1933, and considerable surfacing of roads with oil is expected to take place.

Wildcat Operations in Southwest Texas

(Continued from Page 64)

DIMMITT COUNTY

Motes-Campbell Co.'s No. 1 Denton, 150 ft. from E line, 250 ft. from S line of Tracts 33 and 34 in Sec. 60 of Denton Colony Subd. ..... T.D. 200 ft.; drlg.

DUVAL COUNTY

Buchanan & Frates' No. 1 Hagist, cen. of SW Sur. 267 ... T.D. 1,425 ft.; drlg.
Clark & Cowden's No. 1 J. M. Richardson, 3,268 ft. from S line, 300 ft. from E line of Sur. No. 5 ..... Rigging up.
Delange & Frates' No. 1 Sevier, 1,845 ft. from N line, 2,945 ft. from W line of Sur. 213 ..... Location.
Frank Gravis' No. 3 Schallert in Sur. 255 (Palangano salt dome) ..... T.D. 1,100 ft.; drlg.
O. W. Killam's No. 1 Peters, 150 ft. from E line, 450 ft. from N line of SE of Sur. No. 1 ..... T.D. 2,725 ft.; standing.
Payne & Vernon's No. 1 A. Roach, 865 ft. from E line, 45 ft. from S line of Blk. 7, Sur. No. 457 ..... Derrick.
Plymouth Oil Co.'s No. 1 Parr, 6,250 ft. from W line, 1,925 ft. from S line of San Andres Garcia grant ... T.D. 5,800 ft.; standing.

GUADALUPE COUNTY

John F. Camp's No. 1 Delaney, 2,572 ft. from S line, 1,515 ft. from W line of Delaney 400-acre tract in Jesus Cantu Sur. ..... T.D. 2,402 ft.; abnd.

GOLIAD COUNTY

Hoffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,200 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.
Plymouth Oil Co.'s No. 2 Parks, 400 ft. S of No. 1 Parks in Solomon Parks Sur. ..... T.D. 5,240 ft.; drlg.
Neal et al's No. 1 J. M. Pettus, 10,700 ft. to S line, 2,500 ft. to E line of Pedro Trevino Sur. ..... T.D. 5,070 ft.; abnd.
Rowan & Hope and Phillips Pet. Co.'s No. 1 Irby, 6,500 ft. from E line, 3,000 ft. from N line of 2,080-ac. tract in Ybarbo Sur. ..... Location.

GONZALES COUNTY

Johnson & Mattock's No. 1 J. James, 12 miles NE of Gonzales city, 900 varas from E line, 300 ft. from S line of tract in M. A. Williams Sur. ..... T.D. 3,200 ft.; drlg.
Luling Oil & Gas Co.'s No. 1 J. L. Dubose, 870 ft. from S line, 450 ft. from E line of 100-ac. tract in F. R. Whitner Sur. ..... Location.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft.; S.D.
San Roman Oil Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... T.D. 675 ft.; S.D.
Dayle L. Smith's No. 3 Daskam, SW part of county ..... T.D. 1,726 ft.; S.D

JIM HOGG COUNTY

Clark & Cowden's No. 1 E. Vela, Share 1 El Peyote grant. Rigging up.
D. C. DeWitt's No. 1 Gomez, 1,110 ft. from N line, 150 ft. from W line of Sur. No. 12, SW part of county ... T.D. 1,457 ft.; to drill deeper.
Randado Syndicate's No. 1 Randado townsite, Sur. No. 148 ..... T.D. 2,503 ft.; abnd.

JIM WELLS COUNTY

Catlett & O'Neal's No. 2 H. D. Miller, 2,200 ft. N and 83 deg. E of most southwesterly cor. of ranch ..... Rigging up.
S. A. Lain's No. 1 Vernon Porter, 800 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 .. .. Rebuilding derrick.
Mid-States Oil & Gas Co.'s No. 1 Wade, C Blk. 3, Wade ranch, NE part of county ..... Location.

KARNES COUNTY

A. E. Edmiston's No. 1 O. L. Cochran, 150 ft. from S line, 500 ft. from E line of farm in D. B. McConnell Sur. ..... T.D. 2,014 ft.; drlg.
Ike Howeth et al's No. 1 D. Pargmann in Victor Blanco Sur., 660 ft. NE along county road from NE cor. of F. Heer tract, thence 50 ft. NW at right angles .. T.D. 3,305 ft.; drlg.
Nichols Oil Co.'s No. 1 Newberry, 210 ft. S. 60 deg. E from Fort Bend Oil Co.'s No. 1 Newberry ..... T.D. 3,300 ft.; S.D.
Pickett et al's No. 1 D. E. Lyons in Victor Blanco Sur. ... T.D. 3,422 ft.; to drill deeper.

KERR COUNTY

Eastland Oil Co.'s No. 1 Love, 600 ft. E of No. 1 Love in J. Martinez Sur. No. 1,594 ..... T.D. 2,395 ft.; shutting out water.
Evans & Gant's No. 1 E. Young, A. E. Burg Sur. 28 .... T.D. 1,312 ft.; standing.
Verde O. & G. Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,220 ft. from W line of Sec. 1,923, Hamilton Sur., 4 miles from Center Point; T.D. 200 ft.; carried to this depth and abandoned as Herber Oil Co.'s No. 1 J. D. Witt ..... T.D. 110 ft.; standing.

KLEBERG COUNTY

H. Carter's No. 1 R. H. Simmons, 150 ft. from S and W lines of tract in Sec. 7, King Sur. No. 3 ..... T.D. 3,205 ft.; resuming drlg.

LIVE OAK COUNTY

J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. 37 ..... T.D. 592 ft.; S.D. for water.

LEE COUNTY

Paton Bros.' No. 1-A Turner, 24 ft. from No. 1 Turner ... T.D. 5,595 ft.; drlg.

MEDINA COUNTY

James Earle Greenlee's No. 1 J. P. Nixon, 150 ft. S of C of N line of S half of NW of M. Derungs Sur. No. 528 ..... Spudded in.
Robertson Drilling Co.'s No. 1 Little, 2,350 ft. from N line, 1,500 ft. from E line of E. B. Rutledge Sur., southern part of county ..... T.D. 2,100 ft.; drlg.

MILAM COUNTY

M. W. Eiser's No. 1 Citizen's Nat. Bank of Waco, 1,325 ft. from S line, 625 ft. from E and W lines of tract in Wm. Punchard Sur. ..... Spudded in.
Glass et al's No. 1 Ellison, 700 ft. from N line, 1,350 ft. from W line of 200-acre tract in Samuel Frost Sur. .. T.D. 550 ft.; drlg.
Keyser & Nichols' No. 2 Irwin, 65 ft. from No. 1, Levi Taylor Sur. ..... Set csg. 590 ft.; S.D.
Keyser & Roberts' No. 3 Ward, 125 ft. NE of No. 2 Ward, in Levi Taylor Sur. ..... T.D. 1,315 ft.; S.D.
Michalk & Clark's No. 1 Johnson, 60 ft. S of No. 1 Johnson on 100-ac. lease in Juan Jose Acosta Sur. .. T.D. 1,952 ft; drlg.

SAN PATRICIO COUNTY

John F. Camp's No. 1 W. W. Bennett, C SW of Sec. 8, Geo. H. Paul Subd., J. J. Welder ranch ..... T.D. 4,520 ft.; drlg.

STARR COUNTY

Coastal O. & G. Co.'s No. 1 Kelsey Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86 .. T.D. 989 ft.; standing.
W. T. Gilman & Travelers Oil Co.'s No. 1 C. Ramos, 1,170 ft. from SW line, 1,470 ft. from NW lines of Sur. No. 150 ..... Spudded in and S.D.
H. C. Carter's No. 1 Gonzales, 990 ft. from N line, 1,150 ft. from E line of Share 62-B of Subd. of Porciones 70 and 71, Jurisdiction Mier ..... T.D. 240 ft.; standing.
Jeffries and Lambeth Drilling Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Jurisdiction of Camargo ..... Location.
Frank LaBorde's No. 1 Juan Marroquin, 1,250 ft. from E line, 1,225 ft. from S line of Share 21 of W two-thirds of Porcion 75 ..... T.D. 620 ft.; abnd.
Lackawanna Oil Corp.'s No. 1 V. Guerra, 657 ft. from NE line, 763 ft. from SE line of Blk. 12, Subd. of 2,000-acre tract out of Porciones 55 and 56 ..... Location.
Smith et al's No. 1 Lopez, 200 ft. from E line, 1,000 ft. from S line of Blk. 20, Share 65 of Porcion 80, Jurisdiction Camargo ..... T.D. 300 ft.; standing.
George Stobaugh's No. 1 Seabury et al, 150 ft. from S and W lines of Porcion 107 ..... T.D. 230 ft.; abnd.
Stryalls Oil Corp.'s No. 1 H. Garza, 500 ft. from E line, 5,280 ft. from N line of Share 26, Partition of Porciones 67-72 ..... Location.
Stryalls Oil Corp.'s No. 1 Margo, 150 ft. from N and E lines of Share 27 of Subd. of Porciones 80 and 81, Jurisdiction of Camargo ..... T.D. 210 ft.; abnd.
E. L. Williams' No. 1 L. G. Madrigal, 150 ft. from N and W lines of Share 5-A of Porcion 72 of Jurisdiction of Mier ..... T.D. 332 ft.; drlg.

TRAVIS COUNTY

Fritz Fuchs' No. 1 Swedish, 2,350 ft. from NE line, 750 ft. from NW line of Thomas Smith Sur. ..... T.D. 1,598 ft; S.D.
Ray & Orth's No. 1 Lundgren, 550 ft. from N line, 150 ft. from W line of 133-ac. tract in L. Kimbro Sur. .. T.D. 550 ft.; fishing.

WEBB COUNTY

Blair & Livingston's No. 1 J. M. Garcia, 150 ft. from N and E lines of NE NW of Sur. 1,100 ..... Location.
O. W. Killam's No. 1 Smith, 664 ft. from NW line, 680 ft. from NE line of Blk. 6, Sur. 1,110 ..... T.D. 2,317 ft.; drlg.
Newton Drilling Co.'s No. 1 A. Garcia, 2,550 ft. from S line, 2,340 ft. from W line of Sur. No. 52, 2 miles SW of Carolina Texas Field ..... T.D. 823 ft.; drlg.
Norden & Morris' No. 2 Gates, 240 ft. from W line, 400 ft. from S line of Blk. 5, Sur. No. 19 ..... T.D. 1,645 ft.; drlg.
Thompkins et al's No. 1 Ortiz, 200 ft. from E line, 2,000 ft. from N line of Sur. No. 1,808 ..... T.D. 930 ft.; standing.

WILLIAMSON COUNTY

Burns et al's No. 1 E. G. Edge, 360 ft. from SE line, 267 ft. from SW line of 94-acre tract on Simon Miller Sur. ..... T.D. 850 ft.; drlg.
McLean et al's No. 2 R. C. Miller, 800 ft. to S line, 100 ft. to W line of tract in B. Manlove Sur. ..... T.D. 740 ft.; S.D.
McNeill & Matthews' No. 1 Bachmayer, 300 ft. from E line, 150 ft. from S line of C. C. Browning Sur. ... T.D. 2,000 ft.; standing.

WILSON COUNTY

A. M. Blume's No. 1-A Nicholson, 105 ft. N, 27 deg. E of No. 1 Johnson ..... Moving in rig.

ZAPATA COUNTY

Ballard & Mercer's No. 1 Flores, 500 ft. from NE line, 580 ft. from SE line of Blk. 27, Porcion 37 ..... T.D. 2,505 ft.; standing.
Joe Cullinan's No. 1 E. Gutierrez, 1,992 ft. from NE line, 2,303 ft. from SE line of Charco de la India grant ..... T.D. 1,578 ft.; drlg.
Donohoo et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700-ac. of Share A, Charco Redondo grant ..... T.D. 575 ft.; drlg.
Huff & Fudge's No. 1 Uribe, 150 ft. from NW and SW lines of Blk. 8, Share 7, Partition 6, San Ignacio Subd. of Borrego grant ..... Rigging up.
Hunt & Polk's No. 1 H. Ramirez, 7,075 ft. N of S cor. and 2,918 ft. from W line of Share A of Villa grant .. T.D. 820 ft.; standing.
T. J. Murray's No. 2 Haynes, 3,000 ft. from NE line, 7,091 ft. from NW line of Haynes Pasture, Comitas grant ..... T.D. 1,600 ft.; abnd.
F. J. Oasenbeck's No. 1 Adelfonso Rameriz, 600 ft. W of Zapata-Roma highway, 150 ft. from SE line of Porcion 18 ..... Location.
H. L. Sargent et al's No. 1 Antonio Gutierrez heirs, 922 ft. from W line, 472 ft. from S line of Tract 2, Blk. 5, Nixon Subd., Porcion 10, San Ignacio Borrego grant ..... T.D. 920 ft.; drlg.
F. J. Searight's No. 1 F. Munoz, 660 ft. from N line and on line between Blocks 81 and 82 of Porcion 18 ..... T.D. 275 ft.; comp. water well; skidding rig.

Southwest Texas Proven Areas

Week Ending August 5

NORMANNA POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 2 Hicks ..... Moving in.

COSDEN POOL—BEE COUNTY

Coquat and Barnsdall Oil Co.'s No. 2 Roberts, 1,000 ft. from W line and 300 ft. from N line of tract in George A. Kerr Sur. ..... T.D. 3,100 ft.; drlg.

PETTUS POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 3 R. A. McKinney, 1,600 ft. from S line and 240 ft. from E line of tract in George Habbermacher Sur. ..... Spudded in.
Slick-Seeligson, Inc.'s No. 7 Ray, 400 ft. N of No. 6 Ray .. T.D. 267 ft.; set surface csg.
The Texas Co.'s No. 6 Gremmell, 400 ft. N of No. 5 Gremmell ..... T.D. 700 ft.; drlg.

TULETA POOL—BEE COUNTY

Coquat & Hawn's No. 1 Harris, 1,000 ft. SE of Nichols' No. 1 Harris ..... Rigged up.
John O'Neil & C.R.M. Drlg. Co.'s No. 1 Harris, 330 ft. from S and E lines of SW SE Sec. 3, Ragsley Subd. of Jose Uranga Sur. ..... Location.
Nichols and C.R.M. Drlg. Co.'s No. 2 Harris, 330 ft. from S and E lines of Blk. 7, Sec. 2 of Ragsley Subd. of Uranga Sur. ..... Location.
The Texas Co.'s No. 1 Cox, west offset to Nichols' No. 1 Harris ..... Spudded in

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 2 J. H. Gembler, 180 ft. from N and E lines of tract in A. Manachaca Sur. 51. T.D. 1,216 ft.; drlg.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 750 ft. from E line of tract in J. Montes Sur. ..... T.D. 825 ft.; set csg.
F. H. Eckert & Son's No. 1 Louis Brehm, W offset to No. 3 John J. Brehm ..... Location.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodriguez Sur. ..... T.D. 2,223 ft.; fishing.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 1-B Walker, 320 ft. from NW line, 150 ft. from NE line of Walker lease, Solomon Seal Sur... T.D. 2,460 ft.; bridged; standing in oil.
Cole et al's No. 1 Pierce, 400 ft. from NE line, 445 ft. from NW line of Pierce 100 ac. tract in Solomon Seal Sur. ..... Derrick on ground.

Hadley et al's No. 1 Nugent, 150 ft. from NW and NE lines of 46-acre tract ..... T.D. 2,404 ft.; abnd.
Owen & Gunby's No. 1 Dunlap, 700 ft. SW of Smilock's No. 1 Dunlap and 150 ft. from SE line of tract, S. Seal Sur. ..... T.D. 2,257 ft.; pulling liner to deepen.
Smilock Oil Co.'s No. 1 Dunlap, offsetting Bob Rose's No. 1 Pierce, in Solomon Seal Sur. ..... T.D. 2,400 ft.; standing.

SALT FLATS—CALDWELL COUNTY

Hickman et al's No. 1 C. A. Dickerson, 150 ft. N of cen. of S line of tract in John D. Rains Sur. ..... Spudded in.

WEBSTER POOL—CALDWELL COUNTY

C. J. Webster Oil & Gas Co.'s No. 1 C. F. Robertson, 700 ft. from E line, 200 ft. from N line of 100-ac. tract, John A. Neill Sur. ..... Derrick.
C. J. Webster Oil & Gas Co.'s No. 1-A McCrory, 75 ft. NW of No. 1 McCrory in John A. Neill Sur. ..... T.D. 2,120 ft.; comp. 400 bbls.

COLE POOL—DUVAL COUNTY

Cole Petroleum Co.'s No. 76 Benavides, 1,010 ft. from NE lines, 150 ft. from NW lines of Blk. 8, Sec. 19, Cole Subd. of Mariano Arispe grant ..... T.D. 1,753 ft.; bailing.

GOVERNMENT WELLS—DUVAL COUNTY

F. J. Bissonet and Wm. McGinley's No. 1 Lundell, 150 ft. from E line, 660 ft. from S line of Sur. No. 43 ..... T.D. 245 ft.; drlg.
Buchanan & Terrell's No. 2 R. T. Ellison, 510 ft. from E line, 150 ft. from S line of NE NW of Sur. 44 .... T.D. 2,307 ft.; comp. 1,200 bbls.
R. F. Byrd's No. 1 R. T. Wright, 150 ft. from N and W lines of Sur. 101 ..... T.D. 2,311 ft.; whipstocking.
H. H. Coffield's No. 2 Wendt, 150 ft. from N and E lines of SE NE Sur. No. 43 ..... T.D. 1,210 ft.; drlg.
Humble Oil & Ref. Co.'s No. 4 White, 2,310 ft. from S line, 1,320 ft. from W line of Sur. 58 ..... T.D. 2,301 ft.; comp. 300 bbls.
Magnolia Pet. Co.'s No. 3 Wendt, 150 ft. from N and W lines of SE NW of Sur. No. 44 ..... T.D. 2,292 ft.; set csg.
Magnolia Petroleum Co.'s No. 1 Brodbeck, 150 ft. from S and E lines of W half NW NE Sur. No. 44 ..... T.D. 2,302 ft.; comp. 35 bbls.
George Parr's No. 1 Benavides School, 150 ft. from S and W lines of Sur. No. 44 ..... Rigged up.
Petroleum Finance Corp.'s No. 1 C. W. Hahl, 150 ft. from N and W lines of SW Sur. No. 46 ..... T.D. 2,296 ft.; set csg.
San Diego Oil Corp.'s No. 1 Riley, 150 ft. from N and W lines of W half of NW of Sur. 46 ..... T.D. 2,296 ft.; comp. 200 bbls.
San Diego Oil Corp.'s No. 1 L. Bennett, 150 ft. from S and W lines of SE SW Sur. No. 44 ..... T.D. 2,307 ft.; set csg.
Southwest Drilling Co.'s No. 2 Wendt, 150 ft. from N and E lines of SE of Sur. 43 ..... Set. surface csg.
The Texas Co.'s No. 1 D. F. Freer, 150 ft. from N and E lines of Sur. No. 45 ..... T.D. 2,295 ft.; comp. 1,500 bbls.
The Texas Co.'s No. 2 Riggs, 150 ft. from N and E lines of E half of NW of Sur. No. 46 ..... Location.
The Texas Co.'s No. 1 C. W. Freer, 150 ft. from S and E lines of SE NE, Sur. No. 45 ..... Location.
Whisenant, Trenchard & French Oil Corp.'s No. 1 C. W. Hahl, 330 ft. from S line, 820 ft. from E line of SW SW of Sur. 44 ..... T.D. 1,450 ft.; drlg.
Windsor Oil Co.'s No. 2 L. L. Cummings, 450 ft. from S line, 150 ft. from E line of E of NW NE of Sur. 44 ..... T.D. 2,296 ft.; comp. 72 bbls. hr.

N. GOVERNMENT WELLS POOL—DUVAL COUNTY

Buchanan & Terrell's No. 1 J. T. Smith, 330 ft. from N and W lines of NW NE Sur. 46 ..... T.D. 200 ft.; drlg.
R. F. Byrd's No. 2 Wright, 330 ft. from S and W lines of Sur. No. 101 ..... Location.
Magnolia Pet. Co.'s No. 4 Wendt, 150 ft. from N and E lines of SW NW Sur. No. 44 ..... Location.
Magnolia Pet. Co.'s No. 1 Bryant White, 450 ft. from S line, 150 ft. from E line of SW NW Sur. 44 ..... Location.
San Diego Oil Corp.'s No. 2 Riley, 150 ft. from N and E lines of NW NW Sur. No. 44 ..... Location.

SARNOSA FIELD—DUVAL COUNTY

Edwin M. Jones' No. 1 J. F. Williams, 2,156 ft. from NE line, 150 ft. from NW line of Sur. No. 131 ..... Rigging up.
Smith & Capps' No. 2-A Duval County Ranch Co., 200 ft. from SE and SW lines of W half of Sur. No. 574.. Rigging up.
The Texas Co.'s No. 1 R. L. Brown, 635 ft. from SE and SW lines of N quarter of Sur. No. 574 ..... T.D. 850 ft.; drlg.
The Texas Co.'s No. 2 Ruiz, 150 ft. from NE and SE lines of Sur. No. 127 ..... T.D. 2,812 ft.; abnd.
John F. Camp's No. 2 Weil, 1,200 ft. N, 18 deg. W of No. 1 Weil in Sur. No. 570 ..... Set surface csg.
E. R. Thomas' No. 1 Duval County Ranch Co., 150 ft. from SE and NE lines of E and S of Sur. 576 ..... Spudded in.
Smith & Capps' No. 2 Duval County Ranch Co., 2,210 ft. from NW line, 150 ft. from NE line of Sur. 576... T.D. 2,419 ft.; comp. 500 bbls.

SLICK POOL—GOLIAD COUNTY

T. B. Slick estate's No. 2 Allen, 1,650 ft. from NE line, 330 ft. from NW line of tr. in Obid Marshall Sur..... T.D. 4,243 ft.; comp. gasser.
Slick-Seeligson, Inc.'s No. 3 Allen, 1,650 ft. from NE and SE lines of tract in Obid Marshall Sur. .. .... Rigged up.

DARST CREEK—GUADALUPE COUNTY

Humble Oil & Ref. Co.'s No. 5 Dan Denman ..... T.D. 2,547 ft.; comp. 75 bbls.

SAL-MAR FIELD—GUADALUPE COUNTY

R. R. Ogden's No. 1 Zunker, 500 ft. from S line, 165 ft. from E line of tract in L. Bollinger Sur. ..... Tested dry in chalk.
A. W. Wormser's No. 1 Pfuliman, 450 ft. W of Sal-Mar Oil Co.'s No. 1 Zunker in L. Bollinger Sur. ..... T.D. 2,365 ft.; tested sulphur wtr. in Edwards.
A. W. Wormser's No. 1 Harris, 150 ft. from N line of tract and 150 ft. E of creek in Green Dewitt Sur..... Derrick.

SANDIA POOL—JIM WELLS COUNTY

Larcro Gas & Pet. Co.'s No. 3 Wade, 2,000 ft. S, 33 deg. W of No. 2 Wade, thence 1,970 ft. N, 57 deg. W ..... Moving in.

JACOB POOL—McMULLEN COUNTY

Longhorn Oil Co. and American Gas Co.'s No. 1 Lark, 3,790 ft. from N line, 1,150 ft. from W line of Lark tract, E.W.B. Scrugham Sur. ..... Moving in.

WENTZ POOL—McMULLEN COUNTY

V. G. Schimmel's No. 1 Two Rivers Ranch, SE cor. of Sec. 59, 5 miles S of Wents ..... T.D. 1,430 ft.; drlg.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1 Adams, 420 ft. from S line, 2,000 ft. from W line of F. Mumme Sur. ..... Location.

SAXET FIELD—NUECES COUNTY

Houston Oil Co.'s No. 3-A Harrell, 1,112 ft. from N line, 170 ft. from W line of Sec. 28, Sheppard farm lots ..... T.D. 570 ft.; drlg.
Gulf Coast Oil Co.'s No. 2 Perkins & Gasse, 650 ft. from N line, 990 ft. from E line of Sec. 26 of Shepherd farm lots ..... T.D. 3,877 ft.; drlg.
Gulf Coast Oil Co.'s No. 1 Frank Bliss, 330 ft. from S and E lines of N half of 225-ac. tract ..... T.D. 4,095 ft.; drlg.
Kopley et al's No. 2 Roark, 150 ft. from S and W lines of Roark lease ..... Rigging up.
McCarthy-Rogers-Nix et al's No. 1 Isencee, 151 ft. from W line, 172 ft. from N line of Blk. 12 of Shepherd farm lots ..... T.D. 1,877 ft.; drlg.
Saxet Oil Co.'s No. 3 Walton, 200 ft. from S line, 629 ft. from W line, N offset to Sun-Kopley Donegan ..... T.D. 2,432 ft.; comp. 20,000,000 ft. of gas.

LOS OLMOS POOL—STARR COUNTY

V. V. Combs' No. 1 Kelsey Bass, 150 ft. from N and W lines of NE NE, Sec. 6, Porciones 75, 76 and 77 ..... Location.
Hooks & Weaver's No. 3 Kelsey Bass, 450 ft. from S and W lines of E 30 acres of NE SW Sec 6, Porciones 75, 76 and 77 ..... T.D. 475 ft.; comp. 20 bbls.
Hooks & Weaver's No. 2 Kelsey Bass, 150 ft. from N line, 800 ft. from W line of N 19-ac. of Sec. 8 ..... T.D. 500 ft.; abnd.
J. P. Moore and C. B. Van Maire's No. 1 Seabury et al, 150 ft. from E line, 750 ft. from S line of Share 5, Subd. of W part of Porcion 75 ..... Spudded in.
Griffin et al's No. 1 Bass, 150 ft. from N and W lines of NW NW Sur. 11, Subd. Porciones 75, 76, 77 ..... T.D. 1,400 ft.; standing.
Los Olmos Oil & Gas Co.'s No. 13 Kelsey Bass, 480 ft. from S line, 975 ft. from W line of SE SW of Sec. 6, Subd. of Porciones 75, 76 and 77, Jurisdiction of Camargo ..... T.D. 435 ft.; comp. 20 bbls.
Munday Bros.' No. 1 Seabury, 840 ft. from E line, 4,550 ft. from S line of Share 5, Subd. of W two-thirds of Porcion 75, Jurisdiction of Camargo ..... Rigging up.
Rio Oil & Gas Co.'s No. 3 Kelsey Bass, 150 ft. from W line, 365 ft. from S line of W 10-ac. tract of NE SW Sec. 6 ..... Spudded in.
Sinclair & Rutherford's No. 1 Kelsey Bass, 150 ft. from S and W lines of SE NW Sec. 6, Subd. of Porciones 75, 76, 77 ..... T.D. 335 ft.; drlg.

RIO GRANDE CITY POOL—STARR COUNTY

Coastal Oil & Gas Co.'s No. 1 Olivares, 150 ft. from NE and SE lines of easternmost corner of Share 35, Porcion 80, Camargo ..... Abnd. loc.
L. W. Connor's No. 1 Goodrich, 150 ft. from N and E lines of Tract 5, Lot 5, Porcion 81 ..... T.D. 1,402 ft.; standing.
T. J. Heard's No. 1 Block, 150 ft. from S and E lines of Lot 4, Tract 28-A of Por. 80, Jurisdiction Camargo.. T.D. 3,005 ft.; abnd.
R. E. Johnson's No. 1 F. H. de Izaguirre, 150 ft. from E line, 450 ft. from N line of Share 36-A, Porciones 80-81, Jurisdiction of Camargo ..... Abnd. loc.
King Pin Oil Co.'s No. 1 T. C. Lewis, 207 ft. from E line, 111 ft. from S line of Share 22, Porcion 80, Jurisdiction of Camargo ..... Abnd. loc.
Edgar Swift's No. 2 Frank Doyno, 750 ft. from E line, 470 ft. from S line of Blk. 8, Share 77-A, Porcion 81.. T.D. 1,510 ft.; drlg.
Tarver & Nance's No. 1 Seabury et al, 400 ft. from W line, 150 ft. from N line of Tract 21, in Porcion 79, Camargo ..... T.D. 2,344 ft.; abnd.
E. D. Traylor's No. 1 Doyno, 150 ft. from S and W lines of W half of Blk. 7, Share 77-A of Porciones 80 and 81 ..... T.D. 2,162 ft.; drlg.

ROSENBERG POOL—WEBB COUNTY

Montex Oil Co.'s No. 1 M. Vela, 479 ft. from N line, 490 ft. from W line of Blk. 4, Sur. No. 267 ..... Derrick.
South Texas Oil Co.'s (Rosenberg) No. 4 Laurel, in Blk. 10, Sur. No. 271 ..... T.D. 2,343 ft.; comp. 150 bbls.
South Texas Oil Co. (Rosenberg)s No. 5 Laurel, 411 ft. from E line, 260 ft. from N line of Blk. 10, Sur. 271.. T.D. 531 ft.; comp. 500,000 ft. gas.
South Texas Oil Co.'s No. 6 Laurel, 1,849 ft. from N line, 450 ft. from E line of Blk. 10, Sur. 271 ..... T.D. 2,249 ft.; comp. 150 bbls.
South Texas Oil Co.'s No. 7 Laurel, 200 ft. from N line, 150 ft. from E line of Blk. 10, Sur. No. 271 ..... T.D. 1,250 ft.; drlg.

WEST COLE POOL—WEBB COUNTY

French Oil Corp.'s No. 1 Rosa Benavides, 450 ft. from S and W lines of Sur. No. 659 ..... T.D. 2,329 ft.; bailing.

CHAPMAN POOL—WILLIAMSON COUNTY

Westbrook Oil Co.'s No. 9-B Lawrence, 340 ft. NE of No. 8-B and 150 ft. from SE line of 27-ac. tract in S. Miller Sur. ..... Location.

ESCOBAS POOL—ZAPATA COUNTY

Allied Oil & Gas Co.'s No. 34 Gutierrez, 898 ft. from SE line, 1,790 ft. from NE line of Share 4, Comitas grant ..... T.D. 1,474 ft.; comp. 50 bbls.
Allied Oil & Gas Co.'s No. 35 Gutierrez, 618 ft. from SE line, 2,165 ft. from NE line of Share 4, Comitas grant ..... T.D. 1,478 ft.; comp. 60 bbls.
Blankenship & Hill's No. 1 Montemayor, 150 ft. from W line, 450 ft. from S line of Blk. 6, Sur. No. 64 ..... T.D. 910 ft.; drlg.
F. M. Blair & Son's No. 1 Montemayor, 450 ft. from N line, 150 ft. from E line of Blk. 1, Sur. 63 ..... T.D. 1,700 ft.; setting csg.
McGinley Oil Corp.'s No. 1 G. T. Montemayor, 150 ft. from N and W lines of Blk. 6, Sur. 64 ..... Location.
Shankle and Newton Oil Co.'s No. 18 Trevino, 338 ft. from SE line, 200 ft. from SW line of Blk. 14, Sur. 65 ..... T.D. 1,268 ft.; testing.
The Texas Co.'s No. 10 Measles, 17,100 ft. from SW line, 1,135 ft. from SE line of Cerrito Blanco grant... T.D. 1,210 ft.; comp. 60 bbls.

CHARCO REDONDO POOL—ZAPATA COUNTY

Hynes & Nessly's No. 1 Pablo Trevino, 4,829 ft. from NE line, 150 ft. from SE line of 1,066-ac. tract in Charco Redondo grant ..... Location.
L. G. Smith's No. 1 J. M. Martinez, 350 ft. from NE and SE lines of Blk. 18, Share B, Dunke's Subd. of Charco Redondo grant ..... Location.
Windsor Oil Co.'s No. 1 Martinez, in NE of Blk. 15, of W. R. Duke Subd., Charco Redondo grant ..... T.D. 890 ft.; drlg.

MARTINEZ FIELD—ZAPATA COUNTY

Newton Drilling Co.'s No. 2 Garza, 225 ft. from N line, 1,000 ft. from W line of Blk. 4, Sur. 161 ..... T.D. 2,122 ft.; abnd.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 58)

G. C. Smith et al's No. 1 Wollums, 330 ft. N and W, SE cor. Sec. 30-12-12 ..... S.D. 101 ft.
Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13.... Coring 2,750 ft.

GRANT PARISH

Security Pet. Corp.'s No. 1 Swope est., Sec. 16-9-1e, 1,698 ft. N, 220 ft. E, SW cor. Sec. ..... W.O.S.R. 1,585 ft.
O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 314 ft. S, NW cor., Sec. 16-9n-1e ..... Derrick.

MOREHOUSE PARISH

Feazel & Kalil's No. 1 Davenport, Sec. 28-21-6e..... Set 12-in. 119 ft.

NATCHITOCHES PARISH

W. M. Coates' No. 1 Ross Olive, Sec. 10-9-10, 660 ft. S and E from cen. of Sec. ..... S.D. 2,010 ft.
Dr. H. S. Gerson's No. 1 Smith, Sec. 11-10-8, 2,000 ft. N, NE cor. of irregular Sec. 10, in Sec. 11..... S.D. 1,875 ft.
R. A. Keaton's No. 1 Bastrop State Bank, 200 ft. N and W, SE cor. NE NW, Sec. 17-10-6 ..... Location.
R. A. Keaton's No. 1 Stephens, Sec. 25-10-6, 320 ft. N and W, SE cor. NW NW ..... S.D. 1,700 ft.
H. W. Perritt's No. 1 Cook, 165 ft. E, 165 ft. N, SW cor. NE SW, Sec. 3-8-9 ..... S.D. 2,992 ft.
Sabine Bayou Dev. Co.'s No. 1,130 Caw, 330 ft. N and E, SW cor. SE, Sec. 9-12-5 ..... Drlg. 815 ft.
Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 878 ft. N, 560 ft. E, C, Sec. 23-5-6 ..... S.D. 2,504 ft.

OUACHITA PARISH

Monroe Oil & Royalties Co.'s No. 1 Thieler, 150 ft. N and E, SW cor. SE NW, Sec. 24-18-3e ..... S.D. 112 ft.
Wilson & Mitchell's No. 1 Williams, Sec. 5-16-1e, 330 ft. E, 240 ft. S, NW cor. SW SE ..... S.D. 3,480 ft.

RED RIVER PARISH

C. F. Davis' No. 1 Pierson, 500 ft. S, 317 ft. E, NW cor. SW NW, Sec. 12-14-11 ..... Location.
Lawrence Decker, tr.'s No. 1 Madden, 1,650 ft. S and W, NE cor., Sec. 21-14-10 ..... Drlg. 1,131 ft.
La. Oil Dev. Co.'s No. 2 La. Delta Pecan Co., 2,950 ft. S, 300 ft. E, NW cor., Sec. 27-13-11..... Spudded and S.D. 10 ft.

RICHLAND PARISH

National Gas Co.'s No. 1 Singletary, 1,980 ft. N, 660 ft. W, SE cor., Sec. 20-18n-7e..... S.D. 2,515 ft.

SABINE PARISH

Adams & Roberson's No. 1 Peterson, 406 ft. N, 200 ft. W, SE cor. NE NE, Sec. 35-8-13 ..... S.D. 100 ft.
R. W. Bouiding's No. 1 Williams, Sec. 17-7-10, 200 ft. S and E, NW cor. SW NE ..... Tested dry 2,628 ft.
Bridwell Oil & Gas Co.'s No. 1 Bray, 200 ft. N and W, SE cor., SE NW Sec. 22-8-11 ..... Location.

Bridwell Oil & Gas Co.'s No. 2 Bray, 200 ft. S, 90 ft. W. NE cor. NE SW Sec. 32-8-11 ..... Drlg. plug 2,326 ft.
R. E. Brooke's No. 1 A. Gray, 330 ft. N and W, SE cor. SW NE, Sec. 35-8-13 ..... Location.
J. H. Askew's No. 1 Henderson, 275 ft. N, 165 ft. E, SW cor. SW SE, Sec. 31-8-10 ..... Drlg. 1,800 ft.
V. V. Bull's No. 1 Henderson, 445 ft. S, 275 ft. E, NW cor. SE SE, Sec. 31-8-10 ..... Derrick.
Bob Chew's No. 1 O. Gray, 330 ft. N and E, SW cor. SW NW, Sec. 35-8-13 ..... Location abd.
Cliff Oil Co.'s No. 1-A Martinez School, 720 ft. N, 105 ft. W, SE cor. NE SE, Sec. 4-7-13 ..... W.O.S.R. 2,450 ft.
Clopton et al's No. 1 Campbell, 335 ft. S, 353 ft. W, NE cor. NW NE Section 5-7-11 ..... S.D. 100 ft.
Clopton et al's No. 1 Garcia, 330 ft. N and W, SE cor. SE NW Sec. 4-7-13 ..... Derrick.
W. M. Coates' No. 1 Gray, 330 ft. N and W, SE cor. SW, Sec. 3-7-13 ..... Location.
W. M. Coates' No. 2 Gray, 330 ft. S and W, NE cor. SE SW, Sec. 3-7-13 ..... Location.
Coates Pet. Co.'s No. 2 Stille, 330 ft. N and E, SW cor. SE SW, Sec. 35-8-11 ..... W.O.S.R. 2,465 ft.
Coates Pet. Co.'s No. 3 Stille, 330 ft. N and E, SW cor., Sec. 35-8-13 ..... Location.
The Coming Oil Co.'s No. 1 Cobb, 330 ft. N and E, SW cor., Sec. 14-7-11 ..... Set 10-in. 40 ft; drlg. 1,800 ft.
Crescent Drlg. Co.'s No. 1 Williams, 370 ft. E, 330 ft. S, NW cor. N½ SW, Sec. 21-7-12 ..... Location.
Crescent Drlg. Co.'s No. 2 Williams, 330 ft. S and W, NE cor. SE NW, Sec. 21-7-12 ..... Location.
Mark Curtis et al's No. 1 Sabine Lbr. Co., 330 ft. N and W, SE cor. NE SE, Sec. 35-8-13 ..... Drlg. 1,000 ft.
B. Q. Daniels' No. 1 Armstrong, SE cor. SE NE, Sec. 31-8-10 ..... Derrick.
Mrs. Dabney's No. 1 Hill, 265 ft. N, 235 ft. W, SE cor. NE NE, Sec. 5-7-11 ..... Location.
Mrs. Dabney's No. 2 Hill, 230 ft. S, 235 ft. W, NE cor., Sec. 5-7-11 ..... Location.
R. E. Davidson's No. 1 Davis, 600 ft. S, 125 ft. E, NW cor., Sec. 28-7-11 ..... Derrick.
William DeSota's No. 1 Mooney, 350 ft. S, 395 ft. E, NW cor., Sec. 35-8-13 ..... Rigging up.
B. A. Ferrell's No. 1 Haley, Sec. 6-7-13, 300 ft. S and E, NW cor. NW SW ..... S.D. 2,150 ft.
Harry Flinchbaugh's No. 1 Sepulbedo, 250 ft. N and E, SW cor. SE NE, Sec. 4-7-13 ..... W.O.S.R. 2,424 ft.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW, Sec. 10-8-13 ..... S.D. 6,150 ft.
W. N. Hankins' No. 1 Tilley, 200 ft. E, 30 ft. S, NW cor. SE SE, Sec. 30-8-12 ..... Set 10-in. 64 ft; drlg. 550 ft.
Howard et al's No. 1 Williams, 300 ft. N and E, SW cor. SE NW, Sec. 13-7-11 ..... W.O.S.R. 2,580 ft.
J. B. Huges' No. 1 Stilie, 283 ft. N, 283 ft. W, SE cor. SE SW, Sec. 36-8-11 ..... Dry and abd. 2,693 ft.
Ab Jones' No. 1 Garcia, 200 ft. S and W, NE cor. NW SE, Sec. 4-7-13 ..... Set 10-in. 100 ft.
G. E. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE, Sec. 34-8-11 ..... Set 10-in. 100 ft; drlg. 150 ft.
A. D. King, tr.'s No. 1 Davis, 170 ft. N, 410 ft. E, SW cor. NW NE, Sec. 29-7-11 ..... Location.
A. D. King, tr.'s No. 1 T. L. Andries, 200 ft. S, 300 ft. E, NW cor. SE SE, Sec. 15-7-11 ..... Derrick.
S. A. Lane et al's No. 1 DeKeyser, 223 ft. E, 330 ft. S, NW cor. NE, Sec. 33-7-11 ..... S.D.; W.O. 2,930 ft.
Geo. LeGrand's No. 1 McGough, Sec. 3-8-10 ..... S.D. 1,450 ft.
Magnolia Pet. Co.'s No. 1 Williams, 155 ft. S, 408 ft. W, NE cor. NW, Sec. 6-7-10 ..... Set 12½-in. 206 ft; S.D. 2,050 ft
H. C. Maulding's No. 1 Moores, 330 ft. S and W, NE cor. SE NE Sec. 16-7-13 ..... Rigging up.
Paul L. Miller's No. 1 Lucius, 175 ft. N and W, SE cor. NE SW, Sec. 31-8-10 ..... Set 6-in. 2,430 ft.
Ray Murray's No. 1 Lefkobita, 210 ft. S, 330 ft. W, NE cor., Sec. 5-7-13 ..... Set 10-in. 64 ft; drlg. 250 ft.
Hill Myers' No. 1 Garcia, 200 ft. N and W, SE cor. SW NW, Sec. 4-7-13 ..... Drlg. plug 2,114 ft.
E. F. Neely's No. 1 Raina, 660 ft. N, 100 ft. W, SE cor., SW NW, Sec. 14-7-11 ..... W.O.S.R. 2,541 ft.
Neely et al's No. 1 C. Henry, Sec. 23-7-11 ..... Set 10-in. 62 ft; drlg. 1,600 ft.
C. D. Neff, tr.'s No. 1 Snell, Sec. 9-7-11, 350 ft. N, 660 ft. W, SE cor. Sec. ..... W.O.S.R. 2,509 ft.
Palmer & Smitherman's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and E, NW cor. NE SE ..... Location.
Palmer & Smitherman's No. 2 La. Long Leaf Lbr. Co., 330 ft. S and W, NE cor. SE, Sec. 12-7-11 ..... Location.
Pelican Natural Gas Co.'s No. 2 Buckley, 330 ft. S and W, NE cor. NW NW, Sec. 4-7-10 ..... Set 10-in. 80 ft; drlg. 1,213 ft.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE, Sec. 8-8-10 ..... Derrick.
Thornton et al's No. 1 S. S. Martinez, 355 ft. S, 330 ft. W, NE cor. SE NE, Sec. 4-7-13 ..... Drlg. 1,450 ft.
Otis A. Roberts' No. 1 S. S. Martinez, 312 ft. E, 25 ft. S, NW cor. SE NE, Sec. 4-7-13 ..... Set 6-in. 205 ft.
Otis A. Roberts' No. 1 Sabine Lbr. Co., 224 ft. S, 481 ft. W, NE cor. SW NE, Sec. 5-7-13 ..... Set 10-in. 47 ft; S.D. 600 ft.
Robeste & Sledge's No. 1 Lefkobita, 346 ft. S, 673 ft. E, NW cor. SE NE, Sec. 5-7-13 ..... Derrick pattern.
Robeste & Sledge's No. 2 Sabine Lbr. Co., 803 ft. W, 796 ft. N, SE cor. SE SW, Sec. 5-7-13 ..... Rigging up.
Robeste & Sledge's No. 3 Sabine Lbr. Co., 413 ft. N, 479 ft. W, SE cor. SE SW, Sec. 33-8-13 ..... Derrick.
Bill Rowe's No. 1 Sepulbedo, 530 ft. N, 200 ft. E, SW cor. SE SE, Sec. 4-7-13 ..... Coring 1,998 ft.
Skully & Beach's No. 3 Lafitte, 1,400 ft. S, 133 ft. W, NE cor. NW NW, Sec. 13-7-11 ..... Location.
Skully & Beach's No. 2 Lafitte, 149 ft. S, 228 ft. E, NW cor., Sec. 13-7-11 ..... Set 6-in. 2,449 ft.
H. R. Smith et al's No. 1 La. Long Leaf Lbr. Co., Sec. 12-7-11, 330 ft. S and W, NE cor. NW SW ..... Location.
W. W. Smith et al's No. 1 Sepulbedo, 230 ft. N, 250 ft. W, SE cor., Sec. 4-7-13 ..... Drlg. 2,030 ft.
Sneed & Sneed's No. 1 Pearce, 200 ft. N, 215 ft. E, SW cor. NE SW, Sec. 35-8-13 ..... S.D.; W.O. 2,405 ft.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE, Sec. 13-9-11 ..... S.D. 1,905 ft.
H. B. Stacey et al's No. 1 Hefkobita, 457 ft. N, 583 ft. E, SW cor. SE, Sec. 34-8-13 ..... Derrick.
State Prod. Co., Inc.'s No. 1-B Davis, 200 ft. N and E, SW cor., Sec. 17-7-10 ..... Derrick.
Supreme Oil Co.'s No. 1 Pruitt, 330 ft. N and E, SW cor. SE SW, Sec. 30-8-11 ..... S.D. 1,706 ft.
B. E. Taylor's No. 1 Gay, 232 ft. S, 476 ft. E, NW cor. SE SW, Sec. 36-8-13 ..... Location.
B. E. Taylor's No. 1 Wooley, 330 ft. N and E, SW cor. SE SW, Sec. 36-8-13 ..... Location.
A. F. Tarver's No. 3 Cutrer, Sec. 12-7-11, 1,120 ft. E, 300 ft. N, SW cor. NW ..... W.O.S.R. 2,600 ft.
Thornton et al's No. 2 S. S. Martinez, 312 ft. E, 205 ft. S, NW cor. SE NE, Sec. 4-7-13 ..... Location.
A. A. Trammell's No. 1 Sepulbedo, 330 ft. N and W, SE cor. NW NE, Sec. 5-7-13 ..... Derrick.
Triangle Drlg. Co.'s No. 1 La.-Long Leaf Lbr. Co., 330 ft. N and W, SE cor. Sec. 11-6-11 ..... Drlg. 1,500 ft.
W. C. Turnbow's No. 1 Williams, 200 ft. W C E line SW NW, Sec. 13-7-11 ..... Derrick pattern.
W. C. Turnbow's No. 2 Williams, 178 ft. S, 300 ft. E NW cor. SW NW, Sec. 13-7-11 ..... Flowing 100 bbls. 2,591 ft.
Tuffree et al's No. 1 T. L. Andries, N½ NE SE, Sec. 15-7-11 ..... S.D. 100 ft.

C. C. Walker's No. 1 Noble-Neely, 330 ft. S and E, NW cor. SW, Sec. 36-8-13 ..... S.D. 1,700 ft.
Wurtsbaugh & Torren's No. 1 Peterson, 330 ft. N and W, SE cor, SW NE, Sec. 26-8-13 ..... Location.
Wurtsbaugh & Torran's No. 1 Gray, 330 ft. N and SE cor. SE NW, Sec. 35-8-13 ..... Drlg. chalk 2,188 ft.

TENSAS PARISH

H. V. Schumacker's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor., Sec. 39-11-13 ..... Reaming 3,590 ft.

VERNON PARISH

Llano Co-operative Colony's No. 1 fee, NW NE, Sec. 34-2n-9w ..... Did not set 10-in.; drlg. 1,330 ft.

WEBSTER PARISH

George Pearce et al's No. 1 Ambrose, 200 ft. N and W, SE cor. SW SE, Sec. 22-20-10 ..... Spudded in and S.D. 50 ft.

WINN PARISH

P.V.T. Oil Co.'s No. 1 Southern Paper Co., 150 ft. S and W, NE cor. SW, Sec. 28-13-3 ..... Set 10-in. 63 ft.

Arkansas

CLAY COUNTY

S. C. Jeffus' No. 1 Underwood, 510 ft. N, 350 ft. W, C, NW SE, Sec. 4-20-3 ..... 1,253 ft.

CLEBURNE COUNTY

Frank S. Craver et al's No. 2 Doniphan Lbr. Co., 700 ft. N, 200 ft. E, SW cor. SW, Sec. 34-11-9 ..... Location.

CLEVELAND COUNTY

Crum & Stillwell's No. 1 E. R. Bell, Sec. 10-10s-13 ..... Rigged up and S.D.

DALLAS COUNTY

J. H. James, tr.'s No. 1 Fordyce Lbr. Co., 200 ft. S, 200 ft. E, NW cor. SE, Sec. 11-9-15 ..... S.D. 2,575 ft.

DREW COUNTY

Co-Operative Dev. Co.'s No. 1 Ogles, Sec. 35-15-5, 330 ft. S and E, NW cor. NE NW ..... Drlg. chalk 2,900 ft.

FRANKLIN COUNTY

Ozark Natural Gas Co.'s No. 1 Monroe, C NW NE, Sec. 13-8-29 ..... Derrick.

HOT SPRINGS COUNTY

Star Oil Co.'s No. 1 Cunningham, 285 ft. S, 285 ft. W, NE cor., Sec. 11-5-16 ..... S.D. 1,340 ft.

LINCOLN COUNTY

Lawrence Cook, tr.'s No. 1 McGhee Planting Co., 420 ft. S, 200 ft. W, NE cor. NE SW, Sec. 5-8-7 ..... S.D. 2,985 ft.

LITTLE RIVER COUNTY

Harrell et al's No. 1 Taffee, 32 ft. W, 630 ft. E, 330 ft. S, SW cor. W NW, Sec. 25-12s-32w ..... Drlg. 125 ft.

MILLER COUNTY

C. E. Litchfield's No. 1 Hervey, 525 ft. S, 350 ft. W, NE cor. NE NW, Sec. 2-15-26 ..... T.A. 2,885 ft.
Fitzwater et al's No. 1 E. A. McCowand, NW cor. NW SE, Sec. 22-15-28 ..... Derrick pattern.
Fitzwater et al's No. 1 C. J. Norsen, SW cor. SE SW, Sec. 20-15-27 ..... Moving in rig.
Fitzwater et al's No. 1 Beck, Sec. 33-15-26 ..... S.D. 2,926 ft.
C. E. Litchfield et al's No. 1 Stone, SE cor. SW, Sec. 32-14-26 ..... Rigging up.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor., Sec. 11-20-27 ..... S.D; W.O. 2,600 ft.
Fred Pederson's No. 1 Fouke, 150 ft. S and W, NE cor., Sec. 11-17-27 ..... Location.

OUACHITA COUNTY

Copenhaven et al's No. 2 Berg, C SE SE, Sec. 13-15-17 ..... W.O.S.R. 2,208 ft.
McLean et al's No. 1 L. D. Neely, Sec. 23-15-16, 200 ft. N and W, SE cor. NE SW ..... Drlg. 150 ft.
Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Section 36-12-18 ..... S.D. 525 ft.

PIKE COUNTY

R. R. Henderson's No. 1 J. L. Lee, 400 ft. S, 350 ft. E, NW cor. SW SE, Sec. 31-8-24 ..... S.D.; W.O. 1,020 ft.
R. R. Henderson's No. 1 W. B. East, 200 ft. S, 150 ft. W, NE cor., Sec. 13-9-23 ..... Rigging up on new hole.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW, Sec. 3-4n-6w ..... Partly rigged up and S.D.

SCOTT COUNTY

Waldron O. & G. Co.'s No. 1 White, NE cor. SW NW, Sec. 17-3n-29 ..... S.D. 1,860 ft.

SEVIER COUNTY

Tristate Oil Co.'s No. 1 Grimble, Sec. 34-8-22, S½ SW ..... S.D. 950 ft.

ST. FRANCIS COUNTY

E. R. Henderson's No. 1 Britton, Sec. 1-4-1e, 1,000 ft. S and E NW cor. NE NW ..... Drlg. 2,470 ft. (corrected).

UNION COUNTY

Cox et al's No. 1 Goodwin, 360 ft. S, 180 ft. W, NE cor. SW SW, Sec. 3-16-14 ..... S.D. 140 ft.
H. H. Helms' No. 1 C. H. Murphy, NE cor. NW NE, Sec. 31-16-14 ..... S.D. 2,875 ft.
Wilson & Chapman's No. 1 King, Sec. 3-18-13, 330 ft. N and E, SW cor. NE NE ..... Derrick.
Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE, Sec. 3-18-13 ..... S.D. 1,678 ft.

WASHINGTON COUNTY

(Cable tools)

A. B. Chase and Ed Rogers' No. 1 Cunningham, 125 ft. S, 300 ft. W, NE cor. SW NE, Sec. 14-15-32 ..... S.D. 1 750 ft.

East Texas

BOWIE COUNTY

Logan & Elliott's No. 1 Smith, 9,600 ft. S, 2,500 ft. W, NE cor. Chas. Lewis Sur. ..... S.D. 4,505 ft.
Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 1,792 ft.

CASS COUNTY

Davis & Pigg's No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Lattimer Sur. ..... S.D. 2,860 ft.
C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.
John C. Rogers' No. 1 I. E. Lanier, 573 ft. N, 879 ft. W, SE cor. Lanier 86 ac. in K. E. Welborn Sur. ..... S.D. 2,280 ft.
John C. Rogers et al's No. 1 W. Q. Henderson, 3,100 ft. S, 3,100 ft. E, NW cor., Wm. Davis Sur. ..... S.D. 960 ft.

HARRISON COUNTY

M. E. Nash et al's No. 1 Henderson, G. L. Bledsoe Sur. ..... S.D. 85 ft.
Ryan Cons. Pet. Corp.'s No. 1 J. M. Fuhr, 1,300 ft. N of NW cor. T. J. Copelin Sur., 1,675 ft. SW at right angles to NW SE line of O'Neal Sur. ..... Rigged up and S.D.
Triangle Drlg. Co.'s No. 1 Platt, 1,125 ft. W, 1,995 ft. N, SE cor. F. C. Barker Sur. ..... Location.

MARION COUNTY

Baunoch Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Gist, Claunch & Dodson) ..... Drlg. 4,120 ft.
Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S, most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D. 2,380 ft.
Purcell et al's No. 1 Coker, M. Reed Sur. ..... S.D. 1,957 ft.

PANOLA COUNTY

Moses & Wallace's No. 1 Daniel, 600 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur. ..... S.D. for D.S. 740 ft.
J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr. in James Hanks Sur. ..... S.D. 3,055 ft.

SHELBY COUNTY

K. H. Francis' No. 1 John Mims, Mary Smith Sur. ..... Drlg. 1,340 ft.
General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ..... Rigging up.
Henry Maulding's No. 1 Frost Lbr. Co., NE cor. Frost Lbr. Co.'s 20-ac. tr., A. D. Fountain Sur. ..... Rigged up and S.D.

Prairie Creek Crude Co.'s No. 1 Ellington, 150 ft. N and 200 ft. W from SE cor. 42-a. tr. of J. Burleson Sur....S.D. for water 1,370 ft.
Ridgeway et al's No. 1 Polley, Dominguez Gonzales Sur., 3,180 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tr. ....S.D. 2,375 ft.
Sedberry et al's No. 1 Pickering Lbr. Co., 400 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ....S.D.; W.O. 1,768 ft.
Western World's No. 1 Foster, Billingsby-Jeremiah Bowlin Sur. ....S.D. 2,940 ft.
Wray & Dunbar's No. 1 C. A. Hayden, 660 ft. N and W SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ....Drlg. 2,315 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

CADDO PARISH—PINE ISLAND

Company, well, farm name, section and block—	Remarks:
Louana Oil & Gas Co.'s No. 1 Cushman, 1,350 ft. N, 600 ft. E, SW cor., Sec. 33-19-14	Drlg. 2,348 ft.

CLAIBORNE PARISH

Triangle Drlg. Co.'s No. 1 Brown, 1,542 ft. N, 1,900 ft. W, SE cor. NE, Sec. 1-19-6	Set 12½-in. 512 ft; drlg. 3,000 ft.

OUACHITA PARISH

Carbon Con.'s No. 7 Guthrie, Sec. 50-23n-4e, 5,263 ft. N, 7,475 ft. W of cors. of Secs. 25, 26 and 49, in Sec. 50	Location.

SABINE PARISH—ZWOLLE

Abbott & Rankin's No. 1 Nulton, 330 ft. S and E, NW cor. SE NE, Sec. 2-7-13	Derrick.
Abbott & Rankin's No. 1 Towley, 330 ft. S and E, NW cor. SE NW, Sec. 1-7-13	Set 6-in. 2,065 ft.
Acme Oil & Gas Co.'s No. 3 La. Long Leaf, 535 ft. W, 80 ft. N, SE cor., Sec. 3-7-11	Set 10-in. 100 ft; drlg. 800 ft.
J. H. Askew's No. 1-E McNeely, 220 ft. S, 260 ft. W, NE cor. SE NE, Sec. 14-7-11	Location.
Baird Bros.' No. 2 S. S. Martinez, NW cor. NW SW Sec. 2-7-13	Set 6-in. 2,662 ft.
Cameron Oil Co.'s No. 1 G. Martinez, 345 ft. E, 540 ft. N, SW cor., Sec. 2-7-13	Derrick.
Coates Pet. Co.'s No. 2-B Nulton, 330 ft. N and E, SW cor. SW NE, Sec. 2-7-13	Set 6-in. 2,020 ft.
Coates Pet. Co.'s No. 3 S. S. Martinez, 330 ft. S, 200 ft. E NW cor. SE NE Sec. 3-7-13	S.W. and abd. 2,500 ft.
Dengail O. & G. Co.'s No. 1-F Nulton, 330 ft. S and E, NW cor. SW NW, Sec. 2-7-13	W.O.S.R. 2,501 ft.
Dengail O. & G. Co.'s No. 2-G Nulton, 330 ft. N and E, SW cor. NE NE, Sec. 3-7-13	S.D; W.O. 2,475 ft.
Edwards & Hubien's No. 1 Martinez, 355 ft. E, 541 ft. N SW cor., Sec. 2-7-13	Derrick down; location abd.
J. E. Grandstaff's No. 1 Johnson, 9½ SW SW, Sec. 2-7-11	Set 6-in. 2,338 ft.
E. W. Gill's No. 1 Gray, 200 ft. S and W, NE cor. SW SW Sec. 2-7-13	Set 10-in. 47 ft.
J. J. Hall's No. 4 Jacoba, 175 ft. W, 300 ft. N, SE cor. Sec. 1-7-11	S.D. for wtr. 1,700 ft.
E. D. Holcomb's No. 1 La. Long Leaf Lbr. Co., 206 ft. E, 145 ft. N, SW cor. SE SE, Sec. 12-7-11	Location abd.
D. D. Holcomb's No. 2 Quayhagiew, 149 ft. N, 200 ft. E SW cor. SE SE, Sec. 11-7-11	Derrick.
Hutchini et al's No. 1 Garcia, 382 ft. N, 354 ft. W, SE cor. NE SW, Sec. 4-7-13	Rigging up.
Imperial Producers Co.'s No. 1 Leone Est., 1,334 ft. S, 660 ft. E, NW cor., Sec. 32-8-12	Location.
H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW, Sec. 14-7-11	Derrick.
A. D. King, trustee's No. 1 Webb, 300 ft. S and E, NW cor. NW SW, Sec. 31-8-11	Set 10-in. 58 ft; drlg. 150 ft.
Lanier et al's No. 2 Newton, 400 ft. N, 330 ft. W, SE cor. NW, Sec. 3-7-13	Testing 2,460 ft.
Lion Oil Ref. Co.'s No. 3 LaRoux, 384 ft. S and W, NE cor. SW SE, Sec. 3-7-13	Location.
Loring Oil Co.'s No. 18 Bowman-Hicks, 1,280 ft. S, 275 ft. E, NW cor. SW NW, Sec. 15-7-13	Drlg. plug 5,272 ft.
H. D. McDonald's No. 1 T. L. Andrin, 180 ft. E, 150 ft. N, SW cor. NW SE, Sec. 15-7-11	Derrick.
Frank Melat's No. 1 Davis, 175 ft. W, 225 ft. S, NE cor., Sec. 3-7-11	Drlg. 730 ft.
Ben Merritt, trustee's No. 1 Chadick, SW cor. SW NE, Sec. 31-8-10	Derrick.
Ben Merritt, trustee's No. 1-B Nulton, 570 ft. N, 250 ft. W, SE cor. SW NE, Sec. 3-7-13	Dry and abnd. 2,499 ft.
C. D. Neff, tr.'s No. 1 Stoker, 212 ft. N and W, SE cor. NE SW, Sec. 10-7-11	Derrick.
Pelican Nat. Gas Co.'s No. 15 Louisiana Long Leaf Lbr. Co., 330 ft. N and W, SE cor. SE SW, Sec. 5-7-11	Drlg. plug 2,324 ft.
T. L. Phillips et al's No. 1 Haley, 330 ft. S and E, NW cor. NW SE, Sec. 6-7-13	Derrick.
F. G. Reid's No. 4-A McNeely, 200 ft. S and W, NE cor. NW NE, Sec 14-7-11	W.O.S.R. 2,570 ft.
C. T. Ruffian's No. 2 Libby, 330 ft. S and E, NW cor. NE NW, Sec. 8-7-11	Testing 2,454 ft.
Sabine Prod. Co.'s No. 2 Pearce, Sec. 10-7-11, 330 ft. S and E, NW cor. SE NW	S.D.; W.O. 2,699 ft.
Sabine Prod. Co.'s No. 2 Sabine Lbr. Co., 330 ft. S and E from center of Sec. 3-7-13	Set 6-in. 2,054 ft.
Self & Kissick's No. 2 Moran, C W½ SE NE, Sec. 1-7-11	Set 6-in. 2,412 ft.
Service Drlg. Co.'s No. 3-A Gardner, 138 ft. S, 134 ft. W, NE cor., Sec. 12-7-11	Deepening 2,455 ft.
Skidmore Oil Co.'s No. 1 G. Martinez, 396 ft. E, 330 ft. S, NW cor. SE SE, Sec. 3-7-13	Derrick.
Ben F. Smith's No. 2 Turner, 250 ft. N, 450 ft. E, SW cor. NW NW, Sec. 4-7-11	S.D. for wtr. 700 ft.
W. S. Smith, trustee's No. 1 Hamilton, 330 ft. N and E, SW cor. NE NE, Sec. 32-8-11	Derrick.
F. E. Stancil's No. 1 Pouder, 373 ft. S, 397 ft. E, NW cor. NE SE, Sec. 10-7-11	S.D. 2,593 ft.
F. E. Stancil's No. 2 Pouder, 805 ft. N, 233 ft. E, SW cor. SE SE, Sec. 10-7-11	Location.
State Prod. Co.'s No. 1 Keasele, 150 ft. N and W, SE cor. NW SW, Sec. 3-7-13	Set 10-in. 42 ft.
State Prod. Co.'s No. 1 Sabine Lbr. Co., 365 ft. N, 100 ft. W SE cor. NW SW Sec. 3-7-13	Drlg. 1,975 ft.
The Texas Company's No. 2 Maines, 330 ft. N and E, SW cor. SE, Sec. 5-7-11	Derrick.
The Texas Company's No. 2 Nabours, 576 ft. W, 237 ft. S NE cor. SE, Sec. 2-7-11	Drlg. 2,457 ft.
E. M. Thompson's No. 1 Travis, 350 ft. N and E, SW cor. SE SW, Sec. 12-7-11	Flowing 100 bbls. 2,525 ft.
A. A. Trammell's No. 1 Hill, 330 ft. S and W, NE cor. SE SE, Sec. 32-8-11	Rigging up.
J. P. White's No. 1 Nulton, 330 ft. N and E, SW cor. NE NW, Sec. 1-7-13	Set 6-in. 2,050 ft.
George Woulf's No. 1 Nulton, 330 ft. S, 330 ft. E, NW cor. SW NE, Sec. 3-7-13	Set 10-in. 43 ft; drlg. 350 ft.

UNION PARISH

Southern Carbon Co.'s No. 60 fee, 36 ft. W, 482 ft. S, NE cor. NW, Sec. 26-20-4e	Set 6-in. 2,095 ft.
Southern Carbon Co.'s No. 61 fee, 2,210 ft. N, 660 ft. E, SW cor. SE, Sec. 17-20-4e	Location.

Arkansas

UNION COUNTY—URBANA

Artex Oil Co.'s No. 1 Goodwin, 330 ft. N and W, SE cor., Sec. 31-16-15	Rigging up.
Marine Oil Co.'s No. 1 Winn est., 330 ft. S and E, NE cor. S½ NW, Sec. 11-18-13	T.A. 3,556 ft.
Marine Oil Co.'s No. 2-E Thompson, 330 ft. N, 330 ft. E, SW cor. NE NE, Sec. 10-18-13	Location.
Wilson & Chapman's No. 1-B Hadley, Sec. 3-18-13, 330 ft. S and W, NE cor. SE NW	T.A. 3,545 ft.
Wilson & Chapman's No. 3 Emily King, Sec. 3-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE	S.D. 1,730 ft.

East Texas

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucka, John Palmer Sur.	S.D. 3,359 ft.
United Prod. Corp.'s No. 17 Steele, 1,320 ft. N, 660 ft. W, SE cor. C. D. Steele lse., in B. C. Jordan Sur.	Location.

Mississippi

HINDS COUNTY

Henslee et al's No. 1 Warner, 200 ft. S and E NW cor. NE SE, Sec. 14-5n-1e	Testing 2,465 ft.
Cleve Love et al's No. 1 Security Realty Co., 700 ft. E, 300 ft. S, NW cor. NE NW, Sec. 1-5n-1e	Drlg. plug 2,373 ft.
McGuire et al's No. 1 Spring Lake, Sec. 11-5n-1e, 350 ft. N, 450 ft. W, from center of Sec.	T.A. 2,487 ft.
Ridgeway & McGehee's No. 2 Mosal, 300 ft. W, 200 ft. N, SE cor. NE SW, Sec. 24-6n-1e	Rigging up.

RANKIN COUNTY

Meredith-Smith et al's No. 3 Strawder, 400 ft. S, 750 ft. W, NE cor., Sec. 12-5n-1e	Testing 2,347 ft.

Wildcat Operations in Mississippi

CLARKE COUNTY

Company, well, farm name, section and block—	Remarks:
F. X. Gowans et al's No. 1 Elfring, SE NE, Sec. 13-1n-14e	S.D. 104 ft.

HINDS COUNTY

Atkins et al's No. 1 Crane Lawrence, Sec. 23-4n-1e, 300 ft. E, 132 ft. N, SW cor. NE SE	Waiting on csg. 2,485 ft.
Miss.-Minn. Oil Co.'s No. 1 Edwards Land Co., Sec. 23-4n-4w, 1,200 ft. N and E from center of Sec.	S.D. 3,050 ft.

LAMAR COUNTY

Stauffer & Kouri's No. 1 Bond, SE NE, Sec. 13-2n-14w	S.D.; W.O. 2,320 ft.

LOWNDES COUNTY

Lowndes County Oil & Dev. Co.'s No. 1 Carr est., Sec. 34-17-16e, 1,320 ft. E, 330 ft. S, NW cor. Sec.	S.D. 2,100 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 22-15s-17w	Drlg. 1,385 ft.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE, Sec. 25-4n-11e	S.D. 1,520 ft.

NOXUBEE COUNTY

Thompson & Donohue's No. 1 Donohue, Sec. 25-16n-17e	S.D. 1,735 ft.

RANKIN COUNTY

Ferguson Fuller et al's No. 1 Ivey, 120 ft. W and S NE cor. NW, Sec. 13-5n-1e	Drlg. 2,383 ft.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e	Derrick

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-5-9	S.D. 750 ft.

Wildcat Operations in Alabama

LAMAR COUNTY
(Cable tools)

Company, well, farm name, section and block—	Remarks:
DeSoto O. & G. Corp.'s No. 1 Gardner, NW NW, Sec. 22-15s-16w	Drlg. 3,005 ft.

MOBILE COUNTY

Ohio Oil Co.'s No. 1 James Bethel, 330 ft. N and E, 3,300 ft. E of NW cor, SW SE, Sec. 34-3s-2w	Drlg. 4,304 ft.
J. C. Prine et al's No. 1 M.&O.R.R., Sec. 33-2n-4w	Drlg. 2,150 ft.

WASHINGTON COUNTY

South Alabama O. & G. Co.'s No. 1 Wilson, Sec. 26-7n-1w	Rigging up.

Gulf Coast Fields and Wildcats

(Continued from Page 57)

The Texas Company's No. 7 Wilburn (D.D.), Henry Griffith League	Cutting and pulling screen to deepen 4,422 ft.
Texas Gulf Prod. Co.'s No. 2 Cornelia Barber, Henry Griffith League, 514 ft. W, 41.5 ft. S of NE cor. of tr.	Sand showing oil 4,285-4,309 ft.; set 23 ft. of 5-in. screen; comp. flowing by heads 130 bbls. first 12 hrs. through open 3-in. tubing.
Texas Gulf Prod. Co.'s No. 3-C Kirby, 562 ft. from W line, 50 ft. from S line of "C" lease	Drlg. sand, shale and shell 895 ft.
Texas Gulf Prod. Co.'s No. 10-H Kirby, Henry Griffith League, 30 ft. W of No. 2 Ilfrey	Drlg. shale and lime 3,765 ft.
Texas Gulf Prod. Co.'s No. 11-A Kirby, Henry Griffith League, 1,090 ft. from W line and 225 ft. from S line of "A" lease	Spudded.
Texas Gulf Prod. Co.'s No. 11-H Kirby, Henry Griffith League, 150 ft. W of No. 10-H	T.D. 2,163 ft. in salt; plugged to 1,166 ft. to straighten hole; drlg. salt 1,594 ft.
Texas Gulf Prod. Co.'s No. 2 T. H. McLean, Henry Griffith League, 711 ft. from E line midway between C. Barber and McLean tracts on separating line	Rigging up.
Texas Gulf Prod. Co.'s No. 2 O. K. Winfrey, W. D. Smith Sur., 295 ft. N of SW cor. of A. E. Barber lease and 100 ft. W of E line of Winfrey lease	Rig.
Yount Lee Oil Co.'s No. 4-A Zadie Fisher, Wm. Bloodgood Sur., 301 ft. from W line and 96 ft. from S line of tract	Spudded.

LOST LAKE—CHAMBERS COUNTY

Pure Oil Co.'s No. 16 Mayes, E. H. R. Wallis Sur., 1,825 ft. N and 1,429 ft. E of No. 1 Lost River	Building derrick.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co. and Humble O. & R. Co.'s No. 2-A F. I. Booth (second hole), Samuel Kennedy Sur., 75 ft. S of No. 2-A (first hole)	Drlg. gumbo and lime 3,706 ft.
Gulf Prod. Co. and Humble Oil & Ref. Co.'s No. 3-A T. I. Booth, Samuel Kennedy Sur., 200 ft. due S The Texas Company's No. 1 Wolters	Rig.
Gulf Prod. Co. and Humble Oil & Ref. Co.'s No. 3 T. R. Booth, Samuel Kennedy Sur., 2,991 ft. from W line and 487 ft. from E line of E half of tract (452 ac.)	Derrick.
Humble Oil & Ref. Co. and Gulf Prod. Co.'s No. 3 Davis, Robt. Peebles Sur., 500 ft. E of No. 1 and 150 ft. S of N line of tract	Derrick.
Humble Oil & Ref. Co. and Gulf Prod. Co.'s No. 5 George, John Rabb Sur., 1,000 ft. E of No. 4	Location.
Humble Oil & Ref. Co. and Gulf Prod. Co.'s No. 5 George, John Rabb Sur., 1,000 ft. from W line and 330 ft. from N line of "B" lease	Location.

Humble Oil & Ref. Co. and Gulf Prod. Co.'s No. 4 Lockwood-Second hole, John Rabb Sur., 250 ft. W of No. 4 Lockwood-First hole ..... Rig.

Humble Oil & Ref. Co. and Gulf Prod. Co.'s No. 5 Lockwood, John Rabb Sur., 300 ft. from N line and 1,000 ft. from W line of 320-ac. tract ..... Location.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. E. 300 ft. N of SW cor. of Tr. 3 ..... Set screen 5,315 ft.; comp. flowing 53 bbls. hourly, 60 lbs., 5/16-in. choke.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 6-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. from E line and 330 ft. from N line of 469-acre tract ..... Set screen 5,325 ft.; comp. flowing 63 bbls. hourly.

Humble O. & R. and Gulf Prod. Co.'s No. 7-A Lockwood & Sharp, John Rabb Sur., 1,500 ft. E of No. 3-A ..... Sand 4,989 ft.; cmtd. 7-in. csg.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 8-A Lockwood & Sharp, J. Rabb Sur., 1,000 ft. W, 300 ft. S NE cor. of 369.3-ac. tract ..... Rig.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 3-B Lockwood & Sharp, J. Rabb Sur., 1,000 ft. from E line and 300 ft. from N line of Tr. 1 (938.75 ac.).. Drlg. sticky shale 5,022 ft.

The Texas Company's No. 2 Wolters, Samuel Kennedy Sur., 150 ft. out of SE cor. of 100-acre lease ..... Rig.

SOUR LAKE—HARDIN COUNTY

Prudential Oil Co.'s No. 1 Maco Stewart, Stephen Jackson Sur., 1,050 ft. from S line and 150 ft. from W line of 50-acre tract ..... Sand showing gas 3,550-60 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 30 Cade, N. Fitzsimmons Sur., 300 ft. NE of No. 28 in line parallel with NW line Blk. 15 ..... Drlg. gumbo 1,425 ft.

Yount Lee Oil Co.'s No. 31 Cade, N. Fitzsimmons Sur., midway between and in line with Nos. 21 and 29 Cade ..... Drlg. sand and gravel 920 ft.

Yount Lee Oil Co.'s No. 2 Broussard & Orme, Martin Duman Sur., 300 ft. SE of No. 1 ..... Sand and shale 5,165 ft.

Yount Lee Oil Co.'s No. 12 Smith, Martin Dunman Sur., 330 ft. W of No. 11 and 100 ft. N of No. 2 ..... Drlg. hard sand 2,635 ft.

Yount Lee Oil Co.'s No. 2 M. M. Spencer, Martin Dunman Sur., center of tract in line with No. 11 Smith and No. 2 Nellie League ..... Drlg. shale 3,502 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 86 "J" lease ..... Sand and shale 1,318-37 ft.; set screen.

HUMBLE—HARRIS COUNTY

Burt & Deerings No. 2 C.O.&G.-Texas Co. fee, J. B. Stephenson Sur., 50 ft. E and 50 ft. S of SE cor. of Wheeler & Pickens Blk. 24 in 25-acre tract ..... Drlg. shale and lime 1,560 ft.

Rio Bravo Oil Co.'s No. 1 Westheimer, 965 ft. W and 300 ft. N of SE cor. of Westheimer Sur., John Jones Sur. ..... Drlg. sandy lime 1,977 ft.

Sun Oil Co.'s No. 58 River, 75 ft. N and 75 ft. W of SW cor. of E. M. Wilson Blk. 21, R. Dumman Sur. ..... Drlg. 850 ft.

The Texas Co.'s No. 26 House, Mary Owens Sur., 100 ft. W of No. 20 ..... Drlg. sand and shale 3,320 ft.

E. M. Wilson's No. 10 W. & P.-Texas fee, 50 ft. E line, 40 ft. from N line of Blk. 23, J. B. Stevenson Sur... To drop from report.

E. M. Wilson's No. 1 Wheeler & Pickens, Blk. 21, J. B. Stevenson Sur. ..... Drlg. 1,500 ft.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 1 Sladous (W.O.), Wm. Lovett Sur., 150 ft. from S line, 350 ft. from E line of tract ..... T.D. 5,900 ft.; trying to sidetrack.

Hamill & Smith's No. 1 Ward, 50 ft. out of SE cor. of Ward 10-ac. tract, Blk. 186, Wm. Lovett Sur. ..... Rig.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Production Co.'s No. 35 Taylor, Hamilton Sur. No. 52, 50 ft. S of No. 1 ..... Tested S.W. 3,970 ft.; pulled screen and drlg. sandy shale 4,005 ft.

Moody Corp. and Pure Oil Co.'s No. 1 Herman (W.O.), J. Kopman Sur., 200 ft. due W of C of E line of 25-acre tract ..... Sand showing oil 4,831-51 ft.; setting 4¾-in. csg.

Rio Bravo Oil Co.'s No. 21-A Settegast (D.D.), J. Kopman Sur., 400 ft. S and 200 ft. E of NE cor. "A" lease ..... Set 80 ft. 10 in. of 4¾-in. screen 4,315 ft.; swabbing.

S. B. Ward's No. 1 Mowery, J. Hamilton Sur. No. 53, 300 ft. from W line, 60 ft. from N line of 24-ac. tr... No report.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 1 Davis (D.D.), 50 ft. out of SE cor. of David Kokernut Sur. ..... Comp. pumping 70 bbls., 54 per cent water, 3,549 ft.

Cranfill-Reynolds Co.'s No. 1 Moore's Bluff (D.D.), 50 ft. out of NE cor. of M. Duncan ..... Sand 2,955 ft.

Cranfill-Reynolds Co.'s No. 5 Davis (D.D.), Kokernut Sur., 150 ft. from S line, 1,197 ft. from E line of tract ..... No report.

Cranfill & Reynolds' No. 5 Esperson (W.O.), M. Duncan Sur., 100 ft. N line and 300 ft. E line ..... T.D. 6,711 ft.; cmtd. hole 5,455 ft

Cranfill-Reynolds Co.'s No. 9 Moore's Bluff, M. Duncan Sur., 500 ft. S of N line of Moore's Bluff tract in line with No. 6 Davis and No. 6 Moore's Bluff ..... Location.

Cranfill-Reynolds Co.'s No. 10 Moore's Bluff, M. Duncan Sur., 1,500 ft. from E line and 2,100 ft. from N line of 632-ac. tract ..... Rig.

HULL—LIBERTY COUNTY

Aberoil Co., Inc.'s No. 1 fee, Jesse DeVore Sur., 700 ft. from E line and 64 ft. from N line ..... Derrick.

Eclipse Oil Co., No. 2 Barrow, Jesse Devore Sur., 55 ft. W, 35 ft. S of most easterly NE cor. 3.7-ac. tract.... T.D. 4,960 ft.; sand 4,872-4,920 ft.; fishing swab.

Eclipse Oil Co.'s No. 1 Knox-Nelson-Layton, Jesse DeVore Sur., 30 ft. from N line and midway E and W of ½-acre tract ..... Derrick.

Hannah Oil Co.'s No. 1 Hannah, Jesse DeVore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah ..... Shale 964 ft.

D. & L. Prod. Co.'s No. 3 Mecom & Layton, Jesse DeVore Sur., 80 ft. from S line, 60 ft. from W line of 3-ac. tr. ..... Rig.

Gulf Coast Development Co.'s (Healey & Southerland) No. 1 Findley, Jesse DeVore Sur., 50 ft. from E line and 100 ft. from N line of 4-ac. tr. ..... Sand 1,905-45 ft.; set 32 ft. 4½-in. screen; bailed and blew in estimated 200 bbls. daily; killed and now standing 500 ft. oil in hole.

Houston Prod. Co.'s No. 1 Baldwin, Jesse DeVore Sur., 222 ft. from S line and 50 ft. from E line of 5-acre tract ..... Hard sand and shale 4,190 ft.; cmtd. 6⅝-in. at 4,102 ft.

Republic Prod. Co.'s No. 91 Dolbear (D.D.), Jesse DeVore Sur. ..... Pulling screen to deepen.

The Texas Company's No. 7 Hannah (W.O.), 200 ft. out of SW cor. tract in Jesse DeVore Sur. ..... Pulling screen to deepen 4,842 ft.

MARKHAM—MATAGORDA COUNTY

Rycade Oil Corp.'s No. 4 Meyers, 250 ft. from S line and 125 ft. from E line of SW, Blk. 1, William Hadden Sur. ..... Repairing derrick after blowout 3,088 ft.

ORANGE—ORANGE COUNTY

T. P. Morgan's No. 2 M. F. Lambert, 993 ft. from W line and 150 ft. from S line of lease in NE cor. of town tract ..... Rig.

Sun Oil Co.'s No. 1 Bellie (D.D.) ..... Abnd. 4,705 ft.

PORT NECHES—ORANGE COUNTY

The Texas Company's No. 2 Polk-Kuhn-Glass, 350 ft. E and 100 ft. S of SW cor. of Marshall Beauchamp Sur. ..... Bldg. derrick.

REFUGIO—REFUGIO COUNTY

R. M. Jones' No. 1-B Mitchell (D.D.), 250 ft. NW of SE line and 250 ft. SW of Mission River ..... T.D. 9,134 ft.; cmtd. 1 string 6⅝-in. csg. and 100 ft. screen; drld. plug and flowed fresh water; plugged back 15 ft.

Larco Gas Co.'s No. 5 Strauch, Refugio Town tract, Lot 6, Blk. 3, 100 ft. W of No. 2 ..... Abnd. 5,551 ft.

Larco Oil & Gas Co.'s No. 2 Strauch, 650 ft. from S line and 200 ft. from E line of Lot 13, Sec. 12, Refugio town tract ..... Rig.

CLAY CREEK—WASHINGTON COUNTY

Nicholson Oil Corp.'s No. 1 Bimage, C of E½ of J. F. Perry Sur., 300 ft. from W line and 1,300 ft. from S line of 242-ac. tract ..... Shut down 1,600 ft.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Reliable Oil Co.'s No. 1 Haber, 50 ft. N and 50 ft. W of SE cor., Lot 4, Blk. 12, Sec. 46-9s-2w ..... Sand and shale 1,909-27 ft.; pumped S.W.; shut down.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 2 Waite, 330 ft. out of NE cor. SE, Sec. 12-9s-7w ..... Sand and shale 5,506 ft.; cmtd. 9⅝-in. csg. to protect hole.

Shell Pet. Corp.'s No. 2 Fontenot, 225 ft. E and 325 ft. N of SW cor. of Sec. 7-9s-6w ..... Drlg. sandy shale 532 ft.

EDGERLY—CALCASIEU PARISH

C. M. Crotty Oil Co.'s No. 7 Lillard (W.O.) ..... Set whipstock 3,824 ft.

Green Oil Co.'s No. 10 Moore (D.D.), 950 ft. S and 425 ft. E of NW cor. of Sec. 28-9s-11w ..... T.D. 3,070 ft.; set whipstock 2,775 ft. and milling out of casing to sidetrack.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 9 Bordages (W.O.), 319 ft. N and 90 ft. E of SW cor. of NW NE Sec. 8-10s-9w ... T.D. 6,900 ft.; plugged to 6,664 ft.

Union Sulphur Co.'s No. 3 Martha Moss, 300 ft. W, 150 ft. S, NE cor. NW SE, Sec. 8-10s-9w ..... Set screen 5,365 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 750 fee (D.D.), Sec. 29-9s-10w.... Sand showing oil 3,397 ft.; cmtd. liner.

Union Sulphur Co.'s No. 769 fee, 295 ft. S, 915 ft. W of C of Sec. 29-9s-10w ..... Salt 6,053 ft.; sidetracked 3,243 ft. to sand 4,886-96 ft.; tested S.W.; pulling screen to deepen.

Union Sulphur Co.'s No. 770 fee, 292 ft. S, 1,243 ft. W of center, Sec. 29-9s-10w ..... Location.

Union Sulphur Co.'s No. 772 fee, 145 ft. S, 852 ft. W of center, Sec. 29-9s-10w ..... Drlg. 2,640 ft.

VINTON—CALCASIEU PARISH

Calcasieu Oil Co.'s No. 2 Unsurveyed Island, 1,120 ft. S and 225 ft. E of NW cor. of Sec. 24-12s-10w ..... Lime rock 2,800 ft.

Calcasieu Oil Co.'s No. 35 Watkins, 360 ft. NE of No. 33 in line with No. 20 in NW cor. Sec. 24-12s-10w ..... Drlg. 1,205 ft.

Gulf Ref. Co.'s No. 6 Gray, Sec. 33-10s-12w, 160 ft. W of No. 3 ..... Drlg. shale and lime 2,586 ft.

Marrs McLean's No. 14 Gray, Sec. 33-10s-12w, 88 ft. W and 30 ft. S of No. 4 ..... Drlg. sand and boulders 891 ft.

Vinton Pet. Co.'s No. 5 Matilda Gray (D.D.), 456 ft. W, 362 ft. N, SE cor. SW NE, Sec. 33-10s-12w..... T.D. 3,667 ft.; cutting and pulling liner at 2,288 ft.

HACKBERRY—CAMERON PARISH

Lackawanna Oil Co.'s No. 1 Ellender, 320 ft. S and 150 ft. E of NW cor. of SE SE of Sec. 21-12s-10w ..... Derrick.

Moon Oil Co.'s No. 6 Sanner, 1,550 ft. N and 675 ft. E of SW cor. of Sec. 25-12s-10w ..... Derrick.

Pop Oil Co.'s No. 1 Ellender, 617 ft. N and 931 ft. W of SE cor. NE, Sec. 19-12s-10w ..... Salt 2,426-30 ft.; abnd.

J. D. Sutton's No. 7 Irwin, 1,320 ft. N and 1,490 ft. W of SE cor. of Sec. 13-12s-10w ..... Lime rock 3,250 ft.

The Texas Co.'s No. 10 State, 2,375 ft. N., 564 ft. E, SE cor. Sec. 13-12s-10w, in Twp. 12s-9w..... Location.

Union Sulphur Co.'s No. 1 Gulf land (Pure Oil Co. lease), 1,958 ft. N, 400 ft. W of SE cor., Sec. 11-12s-10w ..... Sand showing oil 3,216-24 ft.; fishing drill pipe.

Yount Lee Oil Co.'s No. 11 School land, 2,810 ft. W and 1,608 ft. N, SE cor., Sec. 15-12s-10w ..... Hard sand 3,950 ft.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 6 Wilbert, Sec. 9-11s-12e, 200 ft. out from No. 5 ..... Building derrick.

PORT BARRE—ST. LANDRY PARISH

Gulf Ref. Co.'s No. 2 Wilson & Cockran, Sec. 4-6s-5e, 600 ft. N of No. 1 ..... Drlg. shale 2,997 ft.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 21 United Land Co., 3,088 ft. E and 690 ft. N of SW cor. of Sec. 15-10s-4e ..... Broken lime rock 1,696 ft.; abnd.

STARKS—CALCASIEU PARISH

Emerson & Starks' No. 1 Industrial, 385 ft. S and 275 ft. E of NW cor. of SW NE of Sec. 30-9s-12w ..... Coring sand 2,156 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 13-12s-8w, 800 ft. S 66 deg. 42 min. from No. 9 ..... Location.

LEESVILLE—LA FOURCHE PARISH

The Texas Co.'s No. 5 L.L.&E., 3,888 ft. S, 105 ft. E of NW cor. of Sec. 26-21s-22e ..... Pulling screen to deepen 3,663 ft.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Great Southern Oil Co.'s No. 1 Schevojsa, 329 ft. N, 78° E of N cor. B. Dottery Sur. ..... Shut down 2,760 ft.

BRAZORIA COUNTY

John Deering's No. 1 C. W. Chapman, 294 ft. from S line and 104 ft. from E line of Lot 2, Andrew Robinson Sur. ..... Drlg. shale and lime 4,212 ft.

J. R. Ingram's No. 2 Levitt, John Peake Sur., 75 ft. NW of No. 1 ..... Standing 2,185 ft.

Shell Pet. Corp.'s No. 5 Blakely-Winston, Danbury, 1,410 ft. N 63° and 1,200 ft. N 27° W of SW cor. of H.T.&B. Sur. No. 14 ..... Rig.

The Texas Company's No. 7 Belcher, Samuel Harvey N. Little Sur., 1,320 ft. southwesterly and 200 ft. southeasterly out of N cor. of Belcher lease ..... Drlg. gumbo 3,680 ft.

BURLESON COUNTY

Ball & Knob's No. 1 Polansky, M. B. Lawrence Sur., 359 ft. from E line and 469 ft. from N line of 158-ac. tr. ..... Shut down 650 ft.

E. M. Bracey et al's No. 1 Bracey, J. Lastly Sur., 880 ft. from E cor. of P. Taylor 110 acres, SE along NE line of J. G. Houston 160 acres, thence 180 ft. at right angles in 3-acre tract ..... No report.

Marek & Son's No. 3 A. Marek, N. McFaddin Sur., 1,068 ft. N and 225 ft. W of SE cor. of tract ..... Standing 2,210 ft.

J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 81 ft. SW and 4,340 ft. SE of S cor. of Joseph Henson Sur. ..... Gumbo 800 ft.; standing.

COLORADO COUNTY

Bunte and Shell Pet. Corp.'s No. 1 Rudolph Matuska, Joshua Henneke Sur., 700 ft. S of most northerly NW cor. in C E and W of 130-acre tract ..... Rig.

Smith, Adair et al's No. 1 Barnett, 230 ft. from W line and 330 ft. from S line of Blk. 26, Q. K. Winn Sur.... Black shale 4,345 ft.; standing.

FORT BEND COUNTY

Naylor & DeCosta's No. 1 Naylor, 6,350 ft. N, 55 deg. E from SW cor. 653-acre tract in Christman Sur. ..... No report.

North Star Pet. Co.'s No. 1 Guyler, Andrew Roberts Sur., 330 ft. out of SW cor. of 100-acre tract ..... Rig.
Stone & Wyman's No. 1 Beard, H.&T.C. Sur. No. 118, 1,150 ft. from NW line, 1,892 ft. from NE line..... No report.

GALVESTON COUNTY

Humble Oil & Ref. Co.'s No. 1 Rosenkranz, Green's Bayou, center N half of Lot 16, Sarah White Sur..... Rigging up.
H. H. Stevenson's No. 1 Lobit, J. F. Perry and E. M. Austin Sur., 250 ft. N of Dickinson Bayou, and 250 ft. W of E line of E. Lobit 23-ac. tr. ..... Abnd. 600 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur. ..... Drlg. sand and shale 2,670 ft.

HARDIN COUNTY

W. R. Alexander et al's No. 1 Southwestern Lbr. Co., 150 varas W of C of E line of Mary K. Sherman Sur.. Drlg. sand and shale 1,986 ft.
Houston Oil Co. and Republic Prod. Co.'s No. 1 Ariola fee, 3,660 ft. from N line and 9,700 ft. from E line of Ariola Sur. ..... Sand showing oil 3,262-74 ft.; cmtd. 9⅝-in. csg. 3,259 ft.
Joe E. Proctor's No. 1 Russell & Teagle, 2,650 ft. E and 3,777 ft. N of NW cor. of Wm. W. Young Sur..... Shut down 1,972 ft.

HARRIS COUNTY

Bayou Oil Co.'s No. 1 Hall, 350 ft. from N line and 970 ft. from E line of Wm. Hedge Sur. ..... Rig.
T. V. Buckhoive & Sons' No. 1 Miller, Arthur McCormick Sur. ..... Gumbo 740 ft.
John Deering's No. 1 Warren, Hockley T. Snell Sur., 100 ft. due south of The Texas Co.'s No. 3 Warren.. Drlg. sandy shale 2,345 ft.
H. D. Morse et al's No. 1 Schlveinle, Wm. White Sur., 900 ft. S 80° W of NW cor. of Lienberger 20-ac. tract in Blk. 1 ..... Shut down 3,661 ft.
Victor Smith's No. 1 Dr. Griffith, S. Bell Sur., 582 ft. from E line and 60 ft. from N line of 250-acre tract.. Standing 225 ft.

JASPER COUNTY

Hext Drlg. Co.'s No. 1 Flourney, B. F. Jones Sur., 900 ft. NW of Heimerich & Payne's No. 1 Flourney .... Shut down 4,521 ft.
Rio Neches Oil Co.'s No. 4-A Boykin, M. Rackie Sur., 400 ft. E of No. 3-A ..... Shut down.

JEFFERSON COUNTY

Coast Oil & Gas Co.'s No. 1 Young, Joseph Grigsby Sur., 250 ft. from E line and 160 ft. from S line of 40-acre tract in Block F-5, Lot 6 ..... Drlg. gumbo 336 ft.
Elam & Pipkin's No. 2 Broussard, John McGaffey Sur., 150 ft. due E of No. 1 ..... Shut down 1,855 ft.

LIBERTY COUNTY

Leon Brisley's No. 1 J. M. Neal, Edward Tanner Sur., 1,800 ft. E, 1,300 ft. N of most westerly NW cor. of Margaret Evans Sur. ..... Drlg. shale 1,729 ft.
Mayes et al's No. 1 Dunman, J. C. Martin Sur., 1,111 ft. from S line of survey and 2,360 ft. W of Trinity River ..... Rig.

MATAGORDA COUNTY

Dr. Griffith et al's No. 2 Baer, Big Hill, 5,000 ft. N, 3,000 ft. E from SW cor. of Seth Ingram Sur. ..... T.D. 2,720 ft.; cmtd. string of combination 6 and 4-in. csg. 2,700 ft.; drld. plug and tested S.W. to reset.
Shepherd's Mott Salt Dome Oil Co.'s No. 1 Hawkins, Shepherd's Mott, 5,268 ft. from N line and 1,320 ft. from E line of B. McCarthy Sur. ..... Drlg. sandy shale 4,628 ft.
United North & South Oil Co.'s No. 1 Stoddard, J. C. Keller Sur., 150 ft. W and 545 ft. N of SE cor. Blk. 67, Buckeye Townsite ..... Coring sand showing oil 7,830 ft.

MONTGOMERY COUNTY

Alpha Oil Co.'s No. 1 Dunn, C of N 20 ac. of S 50 ac., John Real Sur. ..... Rigging up.
Craft & Gesicke's No. 2 South Tex. Dev. Co., center T.&N.O. Sur., Blk. 5 ..... Location.
Craft & Gesicke's No. 1 South Tex. Dev. Co., T.&N.O. Sur., Blk. 5 ..... Shut down 4,996 ft.
Dutton-Hawkins' No. 1 Foster, Hosea de la Garza Sur., 1,333 ft. N and 1,320 ft. E of NE cor. of W. J. Johnson 100-ac. tract ..... Derrick.
Gohlson Bros. and Rycade Oil Corp.'s No. 1 Drought, 1,340 ft. along N line of Kronkrite Sur., from NE cor., thence 250 ft. S at right angles ..... Abnd. in shale 4,125 ft.
Hamilton et al's No. 1 Gilbert, John Davis Sur., 356 ft. from W line and 465 ft. from S line of 46-acre tract.. Drlg. shale 4,157 ft.
Heep Oil Corp.'s No. 1 Brent, D. W. Collins Sur., 330 ft. from S line in center east and west of 209-ac. tr.. T.D. 5,254 ft. in S.W. sand; plugged back to 5,010 ft.; cmtd. 7-in. csg. 4,970 ft.; drlg. plug.
Heep Oil Corp.'s No. 2 Cartwright Sur., John Davis Sur., 330 ft. from S line, 400 ft. from E line of tr... Sand showing oil 5,127-41 ft.; setting screen.
Humble Oil & Ref. Co.'s No. 1 C. L. Dobbins, Ransom House Sur., 425 ft. from N line and 466 ft. from W line of tract ..... Drlg. sandy shale 2,895 ft.
Humble Oil & Ref. Co.'s No. 4 South Tex. Dev. Co., 1,900 ft. N from SE cor. of T. C. Howell Sur., thence 466 ft. W at right angles ..... Drlg. sticky shale 3,456 ft.
Humble Oil & Ref. Co.'s No. 5 South Texas Dev. Co., Theo. Slade Sur., 330 ft. S of S line of Gulf Coast Drlg. & Prod. Co.'s 60 ac. and due S offset latter's No. 1 ..... Derrick.
Humble Oil & Ref. Co.'s No. 6 South Texas Dev. Co., Theo. Slade Sur., 335 ft. from S line of survey and due N offset Heep Oil Corp.'s No. 1 Hamman ..... Location.
Humble Oil & Ref. Co.'s No. 7 South Texas Dev. Co., Theo. Slade Sur., 331 ft. S of S line of Martin & Dewey 30-ac. tract and 330 ft. W of SE cor. ..... Location.
Humble Oil & Ref. Co.'s No. 8 South Texas Dev. Co., Theo. Slade Sur., 330 ft. E of E line and 331 ft. N of S line of Martin & Dewey 30 ac. ..... Location.
Humble Oil & Ref. Co.'s No. 9 South Texas Dev. Co., Theo. Slade Sur., 330 ft. E and 328 ft. N of SE cor. Gulf Coast Drlg. & Prod. Co.'s 60 ac. ..... Location.
Humble Oil & Ref. Co.'s No. 2 Cartwright, John Davis Sur., 466 ft. E of W line and 466 ft. S of N line of tract ..... Derrick.
Humble Oil & Ref. Co.'s No. 1 Cartwright, John Davis Sur., 330 ft. from N line, 466 ft. from E line of 248.9-ac. tract ..... Shale and lime 1,435 ft.; cmtd. surface csg.
Lilly and Red Moon Oil Co.'s No. 1 Stella McDonald, John Davis Sur., 241½ ft. from E line, 202.5 ft. from S line of 5-ac. tract ..... Rig.
Lowrie & Young's No. 1 C. A. Damuth, approx. 5,430 ft. from E line and 3,018 ft. from S line of T. J. Nichols Sur. ..... Drlg. gumbo 2,416 ft.
Miller Prod. Co.'s No. 1 Foster Lbr. Co., M. B. Lawrence Sur., 2,640 ft. from N line and 200 ft. from E line of 412-acre tract ..... Derrick.
Moore et al's No. 1 Bruton, L&G.N. Sur., 466 ft. out of NE cor. 46-acre tract ..... Drlg. shale and lime 3,875 ft.
Pevehouse Oil Co.'s No. 1 Sealey, Jas. Pevehouse Sur., 1,575 ft. N of N line of Horton & Woodson's 1,562-acre tract and 2,226 ft. E of W line of H.&W. 1,876-acre tract ..... Shut down 2,984 ft.
Plummer & McDaniel's No. 1 South Tex. Dev. Co., Theo. Slade Sur., 330 ft. from S and E lines of 60-ac. lease, in Lot 103 ..... Sand showing oil 5,132-57 ft.; set 1 jt. 5 3/16-in. screen; comp. flowing est. 820 bbls. daily, 3/16-in. choke; 575 lbs. on tubing and 700 lbs. on csg.
Rowe & Flowers' No. 1 Varner, R. House Sur., 116 ft. out of NE cor. of 33-ac. tr. ..... Salt water sand 5,247-55 ft.; abnd.
Rowe & Flowers' No. 1 Alexander, 330 ft. out of SE cor. Lot 20 in the NW A. McCown Sur. ..... Shale 5,223 ft.
C. C. Steinberger et al's No. 1 Steinberger, John Davis Sur., 450 ft. from N and W lines of the 250-ac. tract.. Drlg. shale 5,026 ft.
Strake Oil Corp.'s No. 3 South Tex. Dev. Co., 2,475 ft. from W line and 790 ft. from S line of Theo. Slade Sur. ..... Drlg. shale 5,114 ft.
R. H. Vice's No. 1 S. L. Ross, Jose Maria De La Garza Sur., 1,777 ft. N and 344 ft. E of SW cor. 97-acre tract ..... Drlg. gumbo 2,616 ft.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line and 500 ft. from N line of tract ..... Drlg. shale 1,198 ft.
Sun Oil Co.'s No. 1 Peevey Moore Lbr. Co., 2,145 ft. from S line and 1,325 ft. from W line of F. Stoevar Sur. No. 4 ..... Drlg. gumbo 2,015 ft.

ORANGE COUNTY

Altex Oil Co.'s (Veteran Oil Co.) No. 1 Reed, A. Nelson Sur. No. 1, 500 ft. from N line and 250 ft. from E line of tract ..... Set 10-ft. blank and 15 ft. of 4½-in. screen 4,808 ft.; tested salt water; shut down.

POLK COUNTY

Anderson et al's No. 1 Duke, Peter J. Manard Sur., 330 ft. out of NW cor. of 235-acre tract ..... Rigging up.
Coch & Stevens' No. 1 Ruth Lawrence, Castillian Sur., 300 ft. from W line and 790 ft. from S line of 54-acre tract ..... Drlg. 1,402 ft.
W. H. Freeman's No. 2 Freeman, A. Viesca Sur. ..... Drlg. shale 3,395 ft.
Tony & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur. ..... Spudded.

REFUGIO COUNTY

Gulf Prod. Co.'s No. 1 J. O'Connor, C.E.P.L&M. Sur., 1,200 ft. from S line and 1,500 varas from E line of tract ..... Drlg. shale 5,089 ft.
Humble Oil & Ref. Co.'s No. 1 O'Connor (D.D.), 6,012 ft. S from NE cor. along SE line of Lon T. Rios Sur., thence 7,375 ft. W at right angles in John Keating Sur. ..... Drlg. hard, sandy shale 5,844 ft.
Humble Oil & Ref. Co.'s No. 2 O'Connor, John Keating Sur., 12,625 ft. N of S line at right angles and 8,158 ft. W of E line at right angles ..... T.D. 5,748 ft.; set whipstock 2,300 ft. to sidetrack.

SAN JACINTO COUNTY

Joe L. Pace's No. 1 Foster Estate, H.&T.C. Sur. No. 3, 2,640 ft. from E line and 1,940 ft. from S line survey.. Derrick.

TRINITY COUNTY

C. N. Beckner's No. 1 Mangum, J. A. Henderson Sur., 200 ft. out of NE cor. 80-acre tract ..... Shut down 1,374 ft.
Joseph M. Weaver's No. 1 Thompson, 150 ft. out of NE cor. of I.&G.N. Sur., No. 47 ..... S.D. 3,556 ft.

VICTORIA COUNTY

Bunte et al's No. 2 Keeran, Martin DeLeon Sur., 200 ft. E of No. 1 ..... Sand showing oil 5,831-41 ft.; D.S. test showed 6 fourbles oil in 2½ minutes, 120 bbls., ¾-in. choke; to set casing.
Cullen & West's No. 1 Keeran ranch, Martin DeLeon Sur., 450 ft. from S line, 450 ft. from W line of tr. .. Salt water sand 6,606 ft.; shut down.
Houston Oil Co.'s No. 1-A McFaddin, 200 ft. from NE line, 240 ft. from SE line of I.R.R. Sur. No. 20 ..... T.D. 5,292 ft.; plugged to 1,673 ft.; drlg. sidetracked hole 2,826 ft.
Humble Oil & Ref. Co.'s No. 1 Pete Rydolph, John Kemper Sur., 2,617 ft. from E line and 1,013 ft. from W line of lease ..... Drlg. shale 3,394 ft.
The Texas Company's No. 3 McFaddin (W.O.), S 15° W 6,200 ft., N 75° W 1,850 ft. from NE cor. John M. Rine Sur. ..... Rigging up to work over 5,835 ft.
Union Oil Co.'s No. 1 Keeran, 4,166 ft. SW along SE line of Gulf Prod. Co.'s 2,500-ac. lease from most easterly cor., thence 1,390 ft. SE at right angles in Martin DeLeon Sur. ..... Pulled stuck drill stem 5,035 ft.; to resume drlg.

WALKER COUNTY

W. E. Brown's No. 1 Horshall, 150 ft. out of SE cor. of E. Miller Sur. ..... Shut down 2,011 ft.
Hart Oil Co.'s No. 1 Thompson Lbr. Co., Jose Ortega Sur., 1,265 ft. S, 1,876 ft. W of SW cor. of J. B. Gibson's 71-acre tract ..... Shut down 2,090 ft.
Geo. F. Kerr's No. 1 Smithers Bros., S. Manning Sur..... Shut down 3,650 ft.

WALLER COUNTY

McDaniel and associates' No. 1 Citizens State Bank, B.B.B.&C. Sur., C of 150-acre tract ..... No report.
Seven Wells Oil Corp.'s No. 1 Maxwell, Justo Liendo Sur., 325 ft. from N line and 492 ft. from W line of 86-acre tract ..... Location.

WASHINGTON COUNTY

M.O.&T. Corp.'s No. 1 Giddings, S. Young Sur., 300 ft. from S line and 150 ft. from W line of 698-acre tract ..... Derrick.

WHARTON COUNTY

Gantt et al's No. 1 Laura Hahn, N. Manch Sur., 330 ft. out of NE cor. 142.17-ac. tract ..... Location.

SOUTH LOUISIANA

ASCENSION PARISH

Rio Bravo Oil Co.'s No. 1 Community Lease, Darrow, 200 ft. from N line and 1,500 ft. E at right angles from SW cor. of Sec. 15-10s-2e ..... Drill stem stuck 1,500 ft.

BEAUREGARD PARISH

DeRidder Dev. Co.'s No. 1 McMahon, 200 ft. W and 156 ft. S of NE cor. of NW of Sec. 33-2s-9w ..... Gumbo 1,286 ft.

EVANGELINE PARISH

Emile LeDeau's No. 1 Vidrine, 200 ft. W and 350 ft. S of NE cor. of Sec. 47-3s-2e ..... Shut down 1,420 ft.

IBERIA PARISH

Warrick Oil Co.'s No. 1 Bernard, 912 ft. N and 150 ft. E of SW cor. of Sec. 54-12s-7e ..... Pulling screen to deepen 2,988 ft.

JEFFERSON DAVIS PARISH

D. C. Gillette's No. 1 J. A. Jester, 2,487 ft. S and 1,800 ft. W of NE cor. of Sec. 27-8s-3w ..... Drlg. 3,401 ft.
Little City Oil Co.'s No. 1 Jennings Norwood, 1,975 ft. N and 675 ft. E of SW cor. of Sec. 44-9s-3w ..... Shut down 2,710 ft.

PLAQUEMINES PARISH

Lake Washington-Freeport Sulphur Co.'s No. 2 Cockrell-Moran, Sec. 14-20-25e, 1,318 ft. N and 4,396 ft. E of station ..... Sulphur test.
Lake Washington-Freeport Sulphur Co.'s No. 1 Louisiana State, 598 ft. N and 1,229 ft. E of station ..... Sulphur test.

TERREBONNE PARISH

The Texas Company's No. 7 State-Lake Pelto, 2,216 ft. N. 104 ft. W of SE cor., Sec. 8-23s-18e ..... Derrick.
The Texas Co.'s No. 16 State-Lake Barre, 1,500 ft. S. 150 ft. E of NW cor., Sec. 20-21s-19e ..... Drlg. 2,406 ft.
The Texas Company's No. 17 State-Lake Barre, 1,476 ft. W and 626 ft. S of NW cor. of Sec. 20-21s-20e ..... Driving piling.
The Texas Company's No. 3 Lake Barre-L.L.&E., 2,520 ft. S and 110 ft. E of NW cor. of Sec. 30-21s-20e .... No report.

VERMILLION PARISH

Pure Oil Co.'s No. 1 Mulvey Irrigation (Gueydan), 1,170.9 ft. from N line and 2,252.5 ft. from W line of Sec. 24-11s-1w ..... Drlg. sand and boulders 3,614 ft.

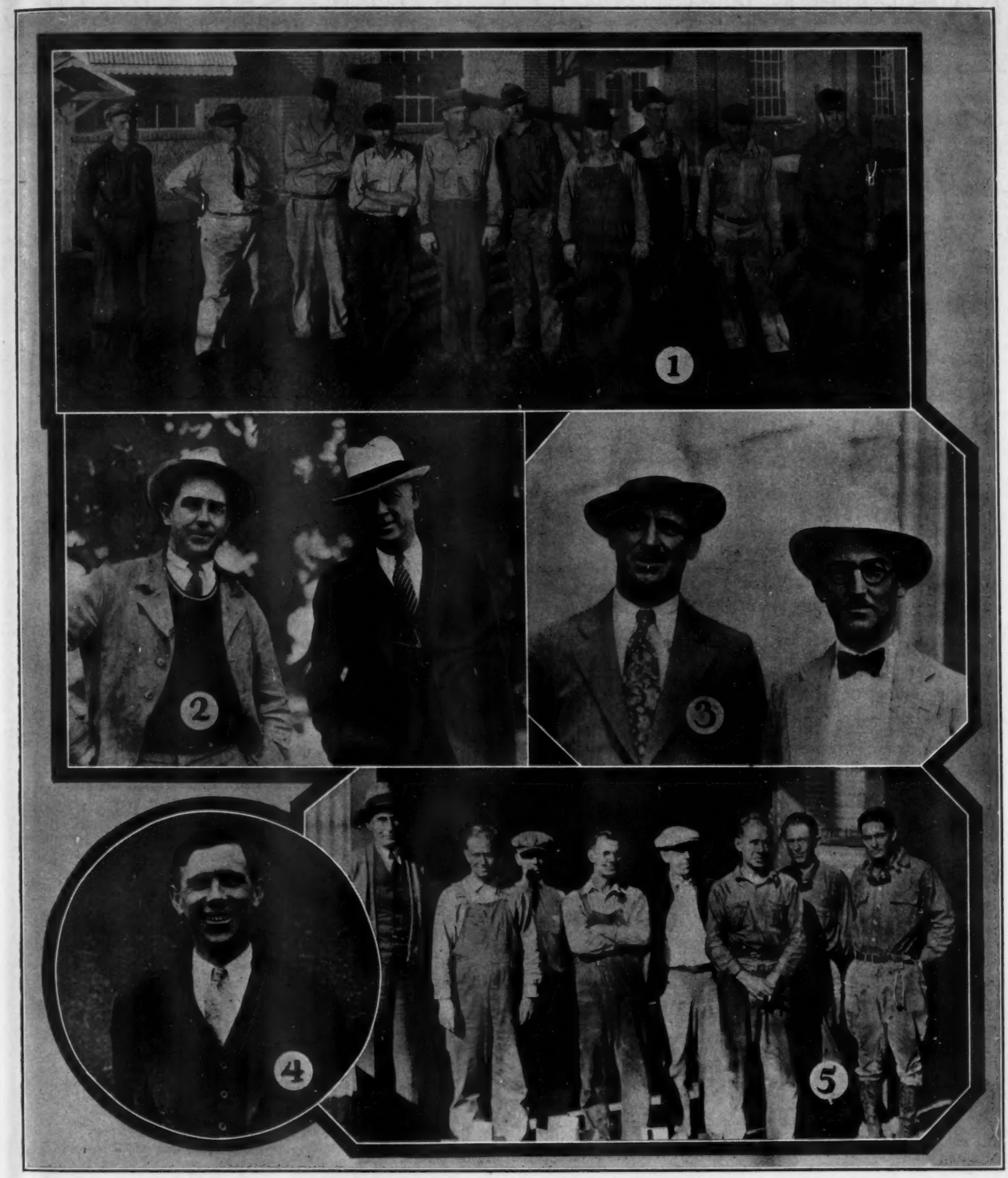
VERNON PARISH

Minerals Division Llano Co.'s No. 1 Llano Del Rio, 542 ft. E and 300 ft. S of NW cor. of NW of Sec. 34-2s-9w ..... Shut down 1,290 ft.

WEST FELICIANA PARISH

Putnam Synd.'s No. 1 Como Plantation, Sec. 51-1s-14w... Shut down 2,449 ft.

As Seen While Scouting With The Oil and Gas Journal's Cameras



(1) Left to right—John W. Tyer, ass't. connection foreman; Fred Robison, operator, Creek station; V. E. Peek, laborer; E. Roller, laborer; A. E. McLeod, laborer; W. E. Cooper, laborer; B. F. Wasson, laborer; J. M. Winn, laborer; J. C. Wasson, laborer and B. E. Phillips, truck driver, The Sinclair-Prairie Pipe Line Co. (2) Left to right—M. W. Bryan and F. L. Senter, National Tank Co., Fort Worth. (3) Left to right—C. M. Johnson, ass't. general manager and R. S. Myers, supt., Crown Central Petroleum Corp., Houston. (4) J. S. Hudnall, Hudnall & Pirtle, Tyler, Texas. (5) Left to right—J. M. Pittman, Lee Bigley, G. O. Pittman, E. A. Stoner; E. J. Mashburn, Chas. Midnight, Jimmie Spavital, Art Lane, all of Snetcher and Pittman, Oklahoma City.

MARKET RECORD OF OIL SECURITIES

By A. E. MOCKLER

NEW YORK, Aug. 8.—With trading running at the highest volume for the year and the general market staging an impressive recovery, oils have participated to the fullest extent in the upward movement. The week's developments were again largely constructive, with the action of Standard Oil Co. (New Jersey) in maintaining its regular and extra dividends again attesting to the strong position of that company. Standard of Indiana also declared its regular dividend.

Earning reports of various oil units for the second quarter, a number of which were issued during the week, almost uniformly testifying that from the standpoint of earning power the oil industry has definitely turned the corner.

Producers & Refiners

A protective committee made up of Earnest Sturm, chairman of the board of the Continental Insurance Co., as chairman; Sherman M. Bijur of H. Hentz & Co., and James G. Stanley, attorney, has been organized by holders of Producers & Refiners cumulative convertible 7 per cent preferred stock. There is approximately $53 per share in dividends due on this stock, which has advanced recently in active trading from the low of the year, $1 per share, to a current price around $8.

Stanolind

Stanolind Crude Oil Purchasing Co., wholly owned subsidiary of the Standard Oil Co. of Indiana, reports for the June quarter net earnings of $815,903 after taxes, interest and depreciation.

Socony-Vacuum

Socony-Vacuum Corp. has declared the regular quarterly dividend of 20 cents a share, payable September 15 to stock of record August 19.

Imperial

Imperial Oil Co., Ltd., declared the regular quarterly dividend of 12½ cents per share on the ordinary shares, payable September 1 to the stock of record August 15.

Hancock Oil

Hancock Oil Co. of California has declared the regular quarterly dividend of 10 cents a share on the Class A stock, payable September 1 to stock of record August 15.

S. O. Nebraska

Standard Oil Co. of Nebraska has declared the regular quarterly dividend of 25 cents a share, payable September 20 to stock of record August 27.

Steaua Romana (British) Ltd., has declared an interim dividend of 2 per cent, less tax, on the ordinary shares. This is the same dividend as was paid last year.

S. O. California

Standard Oil Co. of California for the quarter ending June 30 shows a net profit of $3,986,302 after all charges, equal to 30 cents a share, on 13,102,900 shares of no par stock. In the previous quarter net income was $2,930,241, or 22 cents a share, and a year ago net income was $1,275,358, or 10 cents a share.

For the six months ending June 30 net profit was $6,916,544 after charges and inventory revaluation or the equivalent of 53 cents a share, compared with $5,643,968, or 43 cents a share in the first half of 1931.

Standard Oil Co. of California has declared the regular quarterly dividend of 50 cents a share, payable September 15 to stockholders of record August 15.

Shell Union

Shell Union Oil Corp. and subsidiaries report for the June quarter net loss of $193,126 after interest, depreciation, depletion, abandonments, minority interests, etc. This compares with net loss of $2,742,300 in the first quarter and net loss of $11,056,034 in the second quarter last year. For the first six months of 1932 net loss after charges and taxes was $2,935,426, against net loss of $20,959,034 in the first half of 1931.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb based on closing quotations for Wednesday, was as follows:

Jan. 13	13.63	Apr. 27	12.46
Jan. 20	13.14	May 4	11.73
Jan. 27	12.79	May 11	13.22
Feb. 3	13.19	May 18	12.57
Feb. 10	13.02	May 25	12.44
Feb. 17	13.28	June 1	11.34
Feb. 24	13.45	June 8	11.39
Mar. 2	13.61	June 15	11.86
Mar. 9	14.38	June 22	11.41
Mar. 16	13.00	June 29	12.09
Mar. 23	13.02	July 6	11.75
Mar. 30	13.85	July 13	12.19
Apr. 6	12.12	July 20	12.47
Apr. 13	11.31	July 27	14.50
Apr. 20	12.11	Aug. 3	15.18

Shell Pipe Line

Shell Pipe Line Co. reports for the June quarter profit of $3,230,372 after

Independent Oils on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 30)

1932 High	1932 Low	Week ended July 30 Sales	Week ended July 30 High	Week ended July 30 Low	Close Aug. 3	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
¾	¼	1,200	⅞	⅛	⅝	American Maracaibo	(sh)	700,000	N.P.	....	.....	8⅝	1⅛	4½	½	1¾	¼
2¾	⅝	2,600	2⅝	1	2⅝	Arkansas Natural Gas	(sh)	4,084,225	N.P.	....	.....	26	3¾	16¾	4⅝	6½	1⅛
2⅝	½	16,000	2⅝	1	1⅞	Arkansas Natural Gas "A"	(sh)	3,522,521	N.P.	....	.....	24¾	6½	16⅝	4⅝	6¾	1⅞
5½	1½	1,500	4	2	..	Arkansas Natural Gas pfd.	(sh)	2,193,000	$10	....	4- 1-32	9	4	8⅛	6¼	7	3⅞
9¾	7	100	8½	8½	..	British American Oil Corp.	(sh)	2,622,642	N.P.	20cQ	7- 2-32	62	7⅛	23	13⅜	16⅞	6¼
¾	¼	10,100	¾	½	..	Carib Syndicate		$131,250	25c	....	.....	4⅞	1	2¾	⅝	2⅝	¼
6⅞	1¼	151,100	4⅛	2⅝	3⅞	Cities Service	(sh)	36,418,721	N.P.	30cA§	6- 1-32	68⅛	20	44¼	13	20¾	5
53⅜	10	1,600	20	14	18⅛	Cities Service pfd.	(sh)	1,125,931	N.P.	50cM	6- 1-31	98¾	84	93⅞	78¼	84¾	35⅝
⅛	⅛	No sales	..	..	..	Colombia Syndicate		3,250,000	N.P.	....	.....	..	..	21	3⅜	7⅛	1
1⅞	½	3,500	⅞	⅝	1	Columbia Oil & Gasoline v.t.c.	(sh)	$2,000,000	$1	....	.....	2	½	¾	⅛	½	⅛
1	¼	800	1	¾	⅞	Colon Oil	(sh)	2,200,000	N.P.	....	.....	15	3⅜	8¼	1⅛	3½	¼
1⅜	1	No sales	..	..	..	Consolidated Royalty Oil Co.		$5,527,880	$10	5cQ	4-25-32	11⅛	2½	5⅞	2	2¾	1
½	⅛	No sales	..	..	..	Cosden Oil	(sh)	323,950	N.P.	....	.....	135	42	74¾	1¼	3¾	⅝
4	1⅝	200	4	3¾	..	Darby Petroleum	(sh)	609,696	N.P.	....	10-15-30	26	6½	21¾	4¼	5	1⅜
2½	1	500	2	1½	..	Derby Oil & Refining	(sh)	500,000	N.P.	....	.....	11	2	11	2	6	1½
24½	10½	No sales	..	..	..	Derby Oil & Refining pfd.		48,500	N.P.	....	.....	44	20¾	60	30	40½	25
35⅞	23	14,600	33¾	31⅛	35	Gulf Oil Corp.	(sh)	4,504,921	$25	....	10- 1-31	209	115	166⅞	58½	75½	25⅜
4½	2½	1,600	4	2½	..	Indian Terr. Illum. Oil "B"	(sh)	7,090,037	N.P.	....	.....	..	..	53½	12⅝	16⅞	5
¼	⅛	100	⅛	⅛	..	Intercontinental Petroleum		$5,682,000	$5	....	.....	2⅞	⅜	1⅜	⅝	⅝	⅛
⅝	⅜	No sales	..	..	..	Kirby Petroleum	(sh)	750,000	N.P.	....	.....	3⅝	1¼	3	⅞	1⅞	¼
¾	⅛	8,200	¾	⅛	..	Leonard Oil & Development		$50,000,000	$25	....	.....	14⅞	2½	5	¾	2	½
⅞	½	1,100	¾	⅝	¾	La. Land & Exp.	(sh)	3,000,000	N.P.	....	.....	6⅛	1	4¾	½	1½	¼
2⅜	⅞	No sales	..	..	..	Lion Oil & Refining	(sh)	250,000	N.P.	....	10-27-30	38⅞	18	29	4⅞	6¾	1½
9¼	3⅝	5,400	6½	5	6¼	Lone Star Gas	(sh)	5,000,000	N.P.	16cQ‡	6-30-32	67⅞	28	55⅞	19⅝	25	5½
⅛	⅛	No sales	..	..	..	Magdalena Syndicate	(sh)	850,000	$1	....	.....	1¼	½	1½	⅛	½	¼
6½	3¾	No sales	..	..	..	Margay Oil Corp.		160,000	N.P.	25cQ	4-11-32	38½	14	16	3	5	1⅞
5¼	1⅝	300	2½	2½	..	Memphis Natural Gas	(sh)	920,000	N.P.	15cQ	4-15-32	24	8¼	22¼	7½	12⅛	4½
2	1½	No sales	..	..	..	Mexico-Ohio Oil Co.		500,000	N.P.	....	.....	6⅜	2¼	7½	1¾	4⅞	1½
⅛	⅛	No sales	..	..	..	Mountain & Gulf		$4.000,000	$1	....	4-15-31	1½	½	¾	⅜	½	⅛
3⅞	2⅛	2,000	3⅞	3¼	3½	Mountain Producers		$1,682,182	$10	20cQ	4- 1-32	22⅞	7	12⅛	3¾	5⅞	2
13½	8	5,800	12¼	10⅛	..	National Fuel Gas	(sh)	3,810,183	N.P.	25cQ	4-15-32	43⅞	23	41⅜	19⅜	26½	9¾
¾	⅜	200	⅝	⅝	¾	New Bradford Oil		$7,224,186	$5	....	4-15-31	5	2½	3½	1⅛	1½	½
⅞	⅜	900	⅝	⅜	..	New Mexico and Arizona		$1,000,000	$1	....	.....	9⅜	2¼	7¼	1½	3	¾
1	⅝	No sales	..	..	..	North Central Texas	(sh)	262,446	$5	....	9- 2-30	18½	6⅛	11¼	2⅛	3¼	⅝
⅝	⅛	No sales	..	..	..	North European Oil	(sh)	1,372,391	N.P.	....	.....	..	..	6¼	⅝	2⅛	¼
6¼	3	500	4⅝	4⅛	3¾	Pacific Western Oil	(sh)	1,000,000	N.P.	....	.....	26⅝	12⅛	19½	5½	15	2⅞
⅛	⅛	No sales	..	..	..	Pandem	(sh)	1,291,403	N.P.	....	.....	3½	½	2½	¼	½	⅛
½	⅛	1,400	½	¼	..	Pantapec Oil	(sh)	1,595,500	N.P.	....	.....	10½	1⅞	4⅜	⅞	2	⅝
8½	6	3,200	7½	6½	8½	Plymouth Oil	(sh)	1,050,000	$5	25cQ	7- 1-32	37	22	27½	16¼	19	6
½	⅛	No sales	..	..	..	Reiter-Foster	(sh)	388,584	N.P.	....	12- 2-29	8½	1⅛	5⅜	1	3⅛	⅛
1	¼	2,600	1	¾	..	Richfield Oil pfd. x.w.	(sh)	399,950	$25	....	.....	31½	22	23½	6½	11	⅛
1⅝	⅝	No sales	..	..	..	Ryan Consolidated	(sh)	296,931	N.P.	....	.....	11	2	8⅝	2	3	⅝
½	⅛	800	½	⅛	..	Salt Creek Consolidated	(sh)	1,286,300	$10	....	4- 1-31	5⅞	1⅞	2½	½	1⅝	⅛
4½	2⅞	1,300	4½	4	..	Salt Creek Producers	(sh)	1,496,859	$10	25c	8- 1-32	25⅞	9	15¼	5¼	7¾	2⅝
⅝	¼	1,800	½	⅛	..	Sunray Oil	(sh)	1,163,185	$5	....	4-15-31	12	5⅝	10	2	5¼	¼
6⅝	4½	300	6½	6	..	Texon Oil & Land	(sh)	936,036	N.P.	25c	6-30-32	23	7⅛	19½	8	12⅞	2½
½	⅛	4,400	⅜	¼	⅛	Venezuelan Petroleum	(sh)	755,090	$5	....	2-15-30	6½	1¾	4½	⅜	1⅞	¼
2	1⅛	No sales	..	..	..	Woodley Petroleum		$500,000	$1	....	3-31-29	9½	2	5	½	3½	1⅛
⅝	⅛	No sales	..	..	..	Y Oil & Gas		100,000	N.P.	....	.....	2⅞	½	2½	⅝	2¼	⅝

*Ex-dividend. ‡Payable in stock. §Paid in lieu of regular cash dividend of 2 per cent.

interest, depreciation, etc., but before Federal taxes. This compares with net of $3,726,449 in the second quarter last year.

Ohio Oil

Ohio Oil Co. reports for the June quarter net income of $2,442,092 after taxes, depreciation and depletion, equal after dividends on the 6 per cent preferred to 24 cents a share on 5,652,400 shares of common. Net profit for the first six months of the year was $4,098,198, equal to 36 cents per share on the common.

Simms Petroleum

Simms Petroleum Co. and subsidiaries report for the June quarter net loss of $60,259 after charges and taxes, compared with net loss of $226,899 in the previous quarter. For the six months ended June 30 the company reports net loss of $287,158 after taxes and charges, compared with net loss of $1,699,653 in the first half of 1931.

Lion Oil

Lion Oil Refining Co. reports for the June quarter net earnings of $70,641 after depreciation, depletion and other charges, as compared with net loss of $82,394 in the previous quarter and net loss of $121,551 in the June quarter last year. For the six months ended June 30 the company reports net loss of $11,751 after charges, against net loss of $340,315 in the first six months last year.

Standard Oil Stocks on New York Curb

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 30)

1932 High	1932 Low	Week ended July 30 Sales	Week ended July 30 High	Week ended July 30 Low	Close Aug. 3	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
6¼	6	No sales	..	..	..	Borne Scrymser		$1,000,000	$25	....	10-15-30	46½	25	25	11¼	16	6
35	17½	100	21½	21½	..	Buckeye Pipe Line		$10,000,000	$50	$1Q	6-15-32	74½	55	69	39⅞	56	30
90	53	100	72	72	79	Chesebrough Mfg.		$3,000,000	$25	$1Q‡	6-30-32	210	130	184⅞	104¼	129½	75
3	1⅝	2,700	3	2⅝	2⅝	Creole Petroleum	(sh)	5,977,872	N.P.	....	.....	11¾	5⅜	7⅞	3	3⅞	1⅝
35	18	100	25	23	25	Eureka Pipe Line		$5,000,000	$100	$1Q	8- 1-32	70½	40	54¾	26	36	19
49	35⅝	1,700	46	44½	46	Humble Oil & Refining		$74,103,300	$25	50cQ	7- 1-32	128	74⅛	119	57¼	72	44¼
9½	6¼	5,700	8⅞	7¾	8⅜	Imperial Oil of Canada	(sh)	26,557,496	N.P.	12½cQ	6- 1-32	41	22	30	15	18¼	7⅝
7½	2¾	100	3½	3½	..	Indiana Pipe Line		$3,000,000	$10	10cQ	5-14-32	41⅞	26	41	14½	21¼	5½
10⅝	8	8,900	10⅜	9¾	9⅝	International Petroleum	(sh)	14,247,088	N.P.	25cQ	6-15-32	30⅜	15	24	11⅜	15½	7⅝
10½	6	1,000	8	7½	..	National Transit		$6,362,500	$12.50	25cQ	6-15-32	25⅛	10⅛	22⅜	11½	17½	5
4⅞	2¼	900	4⅝	3⅝	4⅝	New York Transit		$500,000	$5	10cQ	4-15-32	17½	10	21⅜	10⅛	14½	5⅜
4¾	3⅛	No sales	..	..	3¾	Northern Pipe Line		$1,200,000	$10	25c	7- 1-32	63	41	54	26¼	35½	20
9	4	1,400	9	6¾	..	Penn Mex Fuel		$10,000,000	$25	50c	5-25-32	44½	20	32	12	15½	5⅛
14½	9⅝	2,300	14	13⅛	..	South Penn Oil		$30,000,000	$25	25cQ	6-30-32	60¼	35⅛	45⅞	16⅛	23⅞	9¼
10	5	200	6	5¼	..	Southern Pipe Line		$1,000,000	$10	15cQ	9- 1-32	22½	13	20⅞	8⅜	17	7
37	27	No sales	..	..	..	Southwest Pennsylvania Pipe Line		$1,750,000	$50	$1Q	7- 1-32	70	60	64	32	42½	25
22⅛	13⅛	36,300	22⅛	20½	21½	Standard Oil of Indiana		$424,914,895	$25	25cQ	9-15-32	63	45	59⅞	30	38½	13½
15⅞	8⅞	10,100	13⅛	11¾	13	Standard Oil of Kentucky		$25,654,516	$10	30cQ	6-30-32	46⅞	29	40½	18⅝	23⅝	12⅛
19	10¼	200	14	13	..	Standard Oil of Nebraska		$4,770,550	$25	25cQ	9-20-32	50¼	40	48⅞	34⅝	36½	16
28⅛	15½	750	27	24	..	Standard Oil of Ohio		$18,811,675	$25	62½cQ	7- 1-32	129	60	108½	43¼	62½	23
2	1⅝	No sales	..	..	..	Swan-Finch Co.	(sh)	34,480	$25	....	1-15-29	18	10	10	4	4½	1

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus 50 cents extra.

Transactions in Oil Shares on New York Stock Exchange

Quotations Compiled by Francis, Bro. & Co., Members of the New York Stock Exchange and Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ended July 30)

1932 High	1932 Low	Week ended July 30 Sales	Week ended July 30 High	Week ended July 30 Low	Close Aug. 3	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1929 High	1929 Low	1930 High	1930 Low	1931 High	1931 Low
18⅜	12	4,300	18⅜	17¾	18	Amerada Corp.	(sh)	844,200	N.P.	50cQ	1-30-32	42⅝	17½	31½	16½	23	11¼
4	¼	No sales	..	..	..	American Republics Corp.	(sh)	209,180	N.P.	..	12-31-30	64¾	12½	37	5⅛	12⅜	1¼
9¾	6½	No sales	..	..	..	Associated Oil		$44,356,180	$15	25cQ	4-15-32	47¼	34½	51	30	31	8¾
16¼	8⅝	75,100	16¼	14¾	16⅛	Atlantic Refining		$67,416,050	$25	25cQ	6-15-32	77⅞	30	51⅜	16⅝	23⅝	8⅝
6	3⅜	70,300	5⅜	4⅞	5⅞	Barnsdall Corp. A		$11,293,895	$5	....	5-11-31	49⅛	20	34	8⅝	14½	4
16⅛	4¼	121,336	10¾	7¼	10¼	Columbia Gas & El.	(sh)	11,684,220	N.P.	25cQ	5-15-32	140	52	87	30⅝	45⅝	11⅝
11	9	No sales	..	..	..	Colonial Beacon Oil	(sh)	1,444,970	N.P.	....	12-22-22	32⅞	12½	20⅜	8¾	10½	7½
8⅛	4	211,500	8⅛	6¼	7⅝	Consolidated Oil Corp.	(sh)	14,190,000	N.P.	....	.....	..	..	..	..	..	..
7	3⅝	90,500	6¾	5⅝	6¾	Continental Oil of Delaware	(sh)	4,738,594	N.P.	....	12-15-27	47⅞	18	30½	7¾	12	5
35¾	9½	22,500	14½	12⅛	15⅜	General American Tank Car	(sh)	751,638	N.P.	25cQ	7- 1-32	123¾	75	111⅞	53⅛	73⅛	28
15½	4¾	9,700	9⅝	8½	10⅝	General Asphalt	(sh)	413,333	N.P.	25cQ	6-15-32	94¾	42¼	71½	22⅜	47	9⅝
24⅜	8¾	18,400	15⅜	13½	15½	Houston Oil		$24,968,600	$100	....	10-17-30	109	26	116⅞	29¼	68½	15¾
1⅝	1	800	1½	1⅜	..	Indian Refining		$12,564,070	$10	....	10- 1-30	53	13⅛	17	2	4⅝	1⅛
2¼	½	4,400	2¼	1¼	..	Louisiana Oil Refining	(sh)	1,309,069	N.P.	....	.....	18	7	12	3½	4½	1
1	⅜	200	⅞	⅜	..	Maracaibo Oil	(sh)	330,000	N.P.	....	.....	18½	5⅛	10⅜	1⅜	3⅜	½
6⅝	3⅜	24,900	6½	5⅜	6⅝	Mid-Continent Petroleum	(sh)	1,857,912	N.P.	....	2-16-31	39⅞	22½	32	11	16⅜	5
9¼	3½	800	6	4⅞	..	National Supply of Delaware	(sh)	390,879	$50	....	5-15-31	144	98½	124¾	60	70¼	5
9⅞	5	37,600	9⅛	8⅛	9½	Ohio Oil	(sh)	6,648,052	N.P.	20cQ	6-15-32	79⅞	64¼	32	16	19½	5⅛
9⅝	6	No sales	..	..	..	Pan American P. & T.	(sh)	1,000,000	$5	25cQ	6-30-32	69	40½	46½	42	35⅛	20
11¾	7¼	1,600	11¼	9½	..	Pan American P. & T. "B"	(sh)	2,474,288	$5	25cQ	6-30-32	69¼	40½	67¼	30	36½	18
1¼	½	1,500	1⅛	¾	..	Panhandle P. & R.	(sh)	199,370	N.P.	....	.....	15¼	3	12¾	1⅜	4¼	⅝
6½	2	68,100	6¼	4⅞	6	Phillips Petroleum	(sh)	4,156,908	N.P.	....	1- 2-31	47	24¼	44⅝	11½	16⅝	4
½	¼	2,200	½	½	..	Pierce Oil Corp.		$29,622,831	$25	....	.....	3⅜	1	2½	½	1½	¼
1¾	½	7,600	1⅜	1	..	Pierce Petroleum	(sh)	2,500,000	N.P.	....	2-16-31	5⅜	½	7⅛	1⅛	3⅝	½
7⅞	3½	1,500	7⅞	6⅞	..	Prairie Oil & Gas		$61,035,800	$25	....	3-31-31	65⅜	40½	54	11¼	20⅜	4⅛
11	5½	4,200	11	8¾	..	Prairie Pipe Line		$101,250,000	$25	....	6-30-31	65	45	60	16⅝	26½	5⅞
1⅝	⅛	300	⅜	⅜	..	Producers & Refiners		$37,438,950	$50	....	9-15-23	25⅞	4	11⅞	1	6	1
9¾	1	290	7	3¼	..	Producers & Refiners pfd.		$2,845,350	$50	....	5- 4-25	46¾	25½	40	11½	16	3
5¾	2⅞	29,300	5¾	4¼	5⅛	Pure Oil		$75,959,250	$25	....	9- 1-30	30¾	20	27¼	7⅝	11⅞	3¼
1⅜	¼	15,600	1⅜	⅝	¾	Richfield Oil (new)		$52,410,875	N.P.	....	.....	49⅝	20	9¾	4⅛	6⅜	⅝
3⅜	1⅜	10,300	3⅜	2⅜	2⅛	Rio Grande Oil	(sh)	1,236,270	N.P.	....	7-25-30	42½	15	25¾	5	10¼	1¼
23	12⅛	4,900	18¼	17¼	19	Royal Dutch N. Y.	(sh)	611,303	....	80½c†	8- 5-32	64	43⅛	56½	36⅞	42⅝	13
11⅜	6⅝	No sales	..	..	11	Seaboard Oil of Delaware	(sh)	1,244,383	$4	10cQ	6-15-32	59⅜	8¼	37	9¾	20¾	5½
15¾	8	No sales	..	..	..	Shell Transport & Trading Co.		£23,985,000	£1	53c†	7-22-32	51½	40⅝	48⅜	26	34	5
5¼	2½	24,000	5⅛	4½	5¼	Shell Union Oil	(sh)	13,066,497	N.P.	....	6-30-30	31⅜	19	25½	5¼	10¼	2½
45½	18	2,700	43	33	44¾	Shell Union Oil pfd.	(sh)	400,000	$100	....	7- 1-31	108¼	93	106¼	55	78	15
6⅛	3¼	3,400	5⅞	5¼	5⅞	Simms Petroleum	(sh)	600,000	$20	....	9-15-30	40⅛	15	37	5⅝	11	3½
4½	2½	3,800	4⅜	3⅝	..	Skelly Oil		$27,441,250	$25	....	12-15-30	40½	28	12	10⅛	12⅞	2
21½	12	900	21½	20	..	Skelly Oil pfd.	(sh)	119,800	$100	....	5- 1-31	..	..	99⅜	42	62	10
10⅜	5¼	69,300	10½	9¾	10⅜	Socony-Vacuum		$793,613,588	$25	20cQ	9-15-32	..	..	106⅜	98	106	87⅛
91½	81	1,800	87½	86	87½	Standard Oil Export pfd.	(sh)	764,885	$100	$2.50SA.	6-30-32	..	..	..	..	21	8⅜
27¼	15⅛	63,500	25⅝	23¼	25⅝	Standard Oil of California	(sh)	13,102,900	N.P.	50cQ	9-15-32	81⅞	51½	75	42½	51¾	23⅛
12¾	7	5,800	12½	11⅜	12⅝	Standard Oil of Kansas		$8,000,000	$25	....	3-16-31	33¾	18	49	14⅜	19	7¾
31½	19⅞	152,900	30½	27¾	31½	Standard Oil of New Jersey		$637,961,700	$25	25cQ‡	9-15-32	83	49	84⅞	32½	52½	26
32	24¾	1,200	32	30	..	Sun Oil	(sh)	1,416,869	N.P.	25cQ	9-15-32	68⅜	55	70	39	45¼	26¾
¾	¼	3,500	¾	⅜	⅝	Superior Oil Corp.	(sh)	766,979	N.P.	....	12-20-30	24	5¼	9⅜	⅜	1⅜	¼
14⅜	9¼	60,700	14⅜	12⅝	14	The Texas Corporation		$246,204,900	$25	25cQ	7- 1-32	71⅞	50	60½	28¼	36¼	9⅞
3⅜	1½	4,700	2⅞	2⅜	3	Texas Pacific Coal & Oil Co.		$9,304,890	$10	....	12-31-20	23⅞	9½	14½	4	6½	1⅞
9	5	No sales	..	..	..	Tide Water Oil	(sh)	2,191,823	N.P.	25cQ	6-30-32	40	14	31	13	18	9⅞
44½	30	No sales	..	..	..	Tide Water Oil pfd.	(sh)	199,446	N.P.	$1.25Q	5-15-32	97½	85⅛	94⅞	71	83	30
4⅛	2	27,300	4	3	4⅛	Tide Water Associated	(sh)	5,560,424	N.P.	....	2-16-31	23½	10	17¾	5⅜	9	2⅛
46	20	4,900	42	33¼	44½	Tide Water Associated pfd.		$73,284,500	....	$1.50Q	7- 1-32	90⅞	74⅛	89¾	55	68	20½
13⅞	8	15,000	11½	10⅜	11⅜	Union Oil of California		$108,651,750	$25	25cQ	8-10-32	57	42¼	50	10½	26⅝	11
19¼	11⅜	500	12⅞	12¾	13⅛	Union Tank Car	(sh)	1,254,048	N.P.	35cQ	9- 1-32	163¾	121⅞	38½	23	25½	16
1½	½	1,100	1½	1¼	..	Warner-Quinlan	(sh)	632,948	N.P.	....	7- 1-30	42⅞	15	27	4¼	7⅜	⅞
6¼	2¾	16,300	5½	4¾	5⅝	Wilcox Oil & Gas	(sh)	428,967	$5	...	5-10-28	29¾	12⅞	21	6½	9⅜	2⅝

*Ex-dividend. †Interim dividend for 1931. ‡Plus extra dividend of 25 cents.

In comparing highs and lows for the several years in the three tables, it will be necessary to take into consideration cases where there have been stock split-ups.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas, and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

NATURAL GASOLINE FROM EAST TEXAS GAS

Will you kindly advise me what recovery of gasoline can be obtained from casinghead gas from wells in the East Texas Field by the absorption method? How does the efficiency of the absorption method compare with the compression method?—O. A. B.

The East Texas Field is about 35 miles long and 3 to 7 miles wide, extending through Rusk, Gregg and Upshur Counties, Texas. Oil is produced from a sand found at 3,100-3,300 feet, the thickness of the sand ranging from a few inches to 75 feet. The production is regulated according to prorating orders announced from time to time by state officers.

The composition of two samples of gas has been discussed by G. H. L. Kent, Natural Gasoline Association of America, Tulsa, May 17, 1932, see The Oil and Gas Journal, June 30, 1932, page 29. The analyses are shown in the table.

NATURAL GAS EAST TEXAS

	No. 1		No. 2	
	Per cent by vol.	Net G.P.M.	Per cent by vol.	Net G.P.M.
Methane	51.7	....	36.7	....
Ethane	16.2	....	14.5	....
Propane	20.1	....	23.5	....
Butane	9.1	2.85	14.9	4.6
Pentane	2.2	.80	*10.4	4.2
Hexane plus	.75	.35	....	....
26-70 gasoline		1.65		6.0

*Pentane plus.

These analyses appear to be fairly representative of the range in the quality of the gas, the average recovery of the gasoline being about 2 G.P.M.

Gases may be liquefied at normal pressures if the temperature is sufficiently low, but the extreme low temperature is not required provided high pressures are available. It is essential that the temperature be maintained below the critical point, no matter what the pressure may be. However, the expense of furnishing the extreme pressure required for condensing gasoline from some natural gas by pressure alone is prohibitive. The common pressures range, as the extremes, from 250 to 350 pounds.

The essential feature of the absorption method for extracting gasoline from natural gas is that the gas is passed through a suitable liquid, such as mineral seal, gas oil or naphtha, which dissolves the gasoline. When this absorbing liquid is more or less saturated it is heated and the gasoline obtained by condensation.

If large volumes of wet gas, containing over 1 gallon gasoline per 1,000 cubic feet, the compression method may be used, and for a similar volume containing under 1 gallon per 1,000 cubic feet, the absorption unit is suitable. Frequently the two methods are combined in one plant.

The first cost of the absorption plant is higher than the compression plant for a given capacity. The operating costs of both plants are about the same. Formerly the product of the absorption plant was more stable than that from the compression type, but today the installation of stabilizing units at both plants permits close control and adjustments to bring the final products to any desired specification within the natural gasoline range. As has been indicated, the absorption process is adapted for treating natural gas of low gasoline content and the compression plant for gas containing a large quantity of gasoline. As constructed and operated according to commercial practice the absorption method gives higher yields on a low gasoline content gas than the compression method. When the gasoline content is exceptionally high the quantity of oil required to be kept in circulation in the absorption method becomes too large and the compression method should be used.

GRAVITY OR COMPOSITION FOR GRADING OIL

Is there any legal reason for the present practice of paying for crude oil according to gravity? Would it not be more reasonable to pay on the basis of the percentage or weight of gasoline which the oil contains?—E. C.

There was a discussion of the origin of the use of the gravity system for the classification, and the arrangement of the price table, of crude petroleum on this page in the June 30 issue. There is no legal basis, except common practice, for the use of gravity in this manner. The property of gravity was the simplest means available in November, 1922, that enabled the major purchasers of petroleum to correct a condition which was unfavorable to them. One of the largest purchasers found that the average gravity of their oil was 31 degrees while there was a large quantity of much higher gravity oil being sold in their territory at a premium above the flat barrel price then in use. It was decided by these major purchasers to pay for the oil according to quality, as indicated by gravity, to meet this competition.

It is true that the A.P.I. gravity is an approximate indication of the quantity of straightrun gasoline that may be obtained from an oil, but it does not indicate the quality of the gasoline nor what the yield may be when the cracking phase is added to normal pressure distillation. A laboratory analysis may be made so that all such information could be obtained, but this would be expensive and the necessary delay could not be justified.

There is an ever changing market; the specifications for gasoline are not permanent, and while volatility of gasoline was of paramount importance a few years ago, the market now demands a high octane number gasoline. There are some crudes that yield gasoline of very low knock rating and others have a chemical composition which is favorable for making a motor fuel of high octane number. It is conceivable that any oil found in large quantities yielding a gasoline of high octane number would command a higher price than one of equal gravity but yielding a low octane number gasoline. However, this is not a general condition and it seems that the gravity system is so simple, the test being quickly made in the field and not requiring expert knowledge, that there is little reason to expect a change in the system under existing conditions of the industry.

VOLUME CHANGE WITH TEMPERATURE

I would like very much to secure a chart or book giving instructions as how to proceed to figure the difference in volume the different temperatures make on crude oil in evaporation or expansion. For example, I have 466.57 bbls. of crude oil showing a gravity of 41.2° at 75° F. What is the correct volume at 60° F.?—K. C. G.

There are no tables covering losses due to evaporation; such losses will depend on many variables, such as the gravity of the oil, kind of tankage, color of paint, temperature and wind.

The tables used for correcting hydrometer gravity indications at the observed temperature to the standard temperature of 60° F. and for reducing volumes to 60° F. are known as the National Standard Petroleum Oil Tables, Circular of the Bureau of Standards No. 154, together with letter Circular 160, obtainable through the superintendent of documents, Washington, D. C., upon payment of 30 cents. The same tables have been arranged in convenient form and sold by several of the instrument companies.

Table 2, Circular 154, is to be used for obtaining the volume at 60° for a unit volume at any indicated temperature from 0° to 195° F. "This table shows the volume occupied at 60° F. by a quantity of oil of any A.P.I. gravity at 60° F. occupying unit volume at the indicated temperatures. For example, if at 60° the A.P.I. gravity of the oil is 22, one gallon of this oil measured at 105° will have a volume of 0.9822 gallon at 60° F. Intermediate values can be conveniently interpolated when necessary. The values given in the body of the table are in the form of multipliers; that is, the volume of oil at the indicated temperature and degrees A.P.I. multiplied by the corresponding factor in the table equals the volume at 60° F. For example, if the A.P.I. gravity of an oil at 60° equals 22.0 and the volume at 105° equals 5,600 gallons, then the volume at 60° equals $5,600 \times 0.9822$, or 5,510 gallons. For observed temperatures below 60° F. the volume correction should be added to the measured volume; for temperatures above 60° it should be subtracted."

The coefficient of expansion used for the group 35° to 50.9° A.P.I. is 0.0005; so in the example given the difference is 15°, therefore $0.0005 \times 15 = 0.0075$ and this subtracted from 1 gives the multiplier 0.9925 required. That is, 466.57×0.9925 will be the volume at 60° F.

SLIPPAGE AND FREE-WHEELING LUBRICANTS

I should be greatly obliged if you would be kind enough to explain what the term slippage means as used when discussing free-wheeling lubricants? I do not find the word described in the technical dictionaries.—F. H. A.

Slippage, as used in mechanics, means a loss in transmission or the difference between the theoretical and actual delivery of power.

The free-wheeling unit is an over-running clutch designed to transmit torque in one direction only. With the transmission in high gear, the rollers in the free-wheeling unit wedge between the cam and outside shell when the engine speed is equivalent to the propeller shaft speed. With the rollers wedged between the cam and the shell the free-wheeling unit is locked and the torque can be transmitted from the engine to the rear wheel. If the viscosity of the free-wheeling lubricant is too high, the rollers may be held out of contact with the cam and the shell, and the unit will slip instead of transmitting torque. As far as the driver is concerned, the effect is exactly the same as is obtained by throwing the transmission into neutral and depressing the accelerator. When the engine speed drops below the propeller speed, the rollers are released and the free-wheeling unit functions as an over-running clutch, permitting the car to free-wheel or coast.

The term slippage applies only to slipping of the unit in the driving position when the viscosity of the lubricant is too high, due either to the selection of too heavy a lubricant or to the increase in viscosity at low temperatures.

Explaining the conditions in another way, it may be said that slippage occurs with free-wheeling mechanisms, or perhaps with some types of the mechanism, when the viscosity of the oil becomes too high at low temperatures. It means that the mechanism is disconnected, and the engine can no more drive the car than when the gear is in neutral. The effect is the same as if a ratchet was held away from a ratchet wheel. The oil being too thick to permit the device to operate.

The quotation following is from Free-Wheeling Devices and Their Control, by A. M. Wolf, S.A.E. Journal 31, 273, 1932 (July): "Almost any lubricant within reason will do when a roller ratchet is new and engagement is perfect. When wear in the cam surface results from spinning, the local cam angle is altered. The viscosity effect of the lubricant tends to prevent the roller from passing, in engagement, beyond the depression thus formed. If the resistance is great enough to prevent the roller from passing the depression, engagement is prevented and slipping occurs. Therefore, the prime essential in a lubricant is to guard against too great viscosity, in order to prevent slippage. A light, winter engine oil would fill this requirement for the roller ratchet, but gear rattle and noise is excessive if the same oil is used for the transmission. The selection of a lubricant, therefore, involves a compromise in viscosity between that required to prevent slipping and that required to prevent gear noise at high operating temperature. The oil with the flattest viscosity curve is favored, in view of temperature changes that must be encountered and the direct relationship between temperature and viscosity. Some have found that the naphthene base oils allow less slippage than paraffin base oils, and oils containing soap stock allow still greater slippage."

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

WHEN IS IT TIME TO PUMP?

You gave some information concerning how to determine the rate at which a well should be pumped in your answer to a question by G. D. S. I want to ask something along the same line. What is the best way of determining just when is the right time to put a well on the pump? I want to ask also whether there is any serious objection to the practice of allowing wells that are near the end of their flowing life to go dead at intervals and remain that way for hours. —W. G. N.

Engineers regard it as unwise to allow flowing wells that are near the end of their flowing life to remain dead for hours at a time. Although there may not be enough gas pressure to overcome the head of oil and flow it from the hole you may find that gas is seeping through the column of oil and escaping at the casinghead all the time. Thus it is certain that between flows more or less gas is dissipated without performing useful work. When the fluid is pumped from the bottom of the hole as fast as it comes into the well the back pressure against the face of the sand is decreased and conditions tending to increase production are established. It is important to maintain the proper fluid level in a pumping well and unless the sand is covered with oil all the time there is a tendency for gas to escape and for deposits of paraffin and residues to fill the sand pores, thus obstructing the movement of oil to the well. In reply to your question as to the right time to begin pumping a well the following is quoted from "Oil Well Completion and Operation," by H. C. George:

"The proper time to install equipment in a flowing well is largely a matter of judgment in which the final answer is gained only by a pumping test. Frequently, however, a number of wells on the same property stop flowing at about the same time, and it is readily apparent that other production methods must be applied. Sometimes when flowing wells are converted into pumpers satisfactory results are not obtained. This may be due to the action of gas in preventing the proper functioning of the valves, or sand may be carried into the pump and cause sanding up. Such troubles, though common, are overcome by the field men by different methods and ingenious devices.

"In deciding to convert a flowing well into a pumping well before the well actually stops flowing in some of the deeper fields the operator should investigate the probable pumping costs. Perhaps he will find after a test that the increase in production by pumping over its production by flowing is not large enough to warrant the expense involved.

"In Central Texas fields, particularly Ranger and Desdemona, the wells declined rapidly to a point where they flowed but once or twice a day and then for a few minutes only, and it usually was a matter of a few days only until they became dead. In such cases it is desirable sometimes to try to revive the flow by swabbing or even by shooting before the well is put on the pump. It is recognized that every well is a problem within itself, which requires study and tests to determine the proper method of production.

"In some oil fields the expense and physical troubles involved in pumping wells may cause the operator to flow his wells as long as possible. This is true particularly in oil pools where sand enters the well and rapidly cuts out the pump parts. In such cases cleanout jobs are so frequent and pump replacements so costly that the profit may be entirely consumed by maintenance costs. In such instances swabbing both to induce the well to flow and to recover the oil is necessary.

"However, many wells may still flow once or twice a day and not produce as much oil during those flows as they will by pumping. The reasons for this are easily understood. As the gas pressure in the oil sand declines it gradually takes more time for a sufficient head of gas to build up to flow a column of oil out of the casing or tubing. Possibly the column of oil in the hole will build up rather rapidly after each flow, yet the well remain dead for a number of hours before the next flow. On the other hand in pumping the fluid level in the well is lowered down to the pump barrel, so that the differential pressure at the face of the sand is reduced almost to atmospheric pressure and the oil moves into the hole more rapidly."

SALVAGING PIPE FITTINGS

Can you tell me of any method, solution or treatment that can be used to treat old or corroded pipe joints so that the fittings may be salvaged? It is possible in this particular instance to cut the pipe off close to the fittings. As the fittings are malleable they have high salvage value.—J. P. P.

It is understood from your letter that you are interested in reclaiming the fittings rather than the pipe. Reclaiming departments maintained by oil companies in various fields have been doing work similar to this.

If the pipe is cut close to the fitting to be reclaimed it is possible to recondition it by submerging it in a bath of some cleaning compound such as is advertised for the purpose. This will remove all dirt and grease and loosen the pipe in the threads so that the short pieces left in the fittings can be removed.

The cleaning mixture in most cases is prepared in cement vats and heated by submerged steam coils so that the liquid is boiling vigorously when the fittings are lowered into it. To facilitate handling it is usual to put a group of fittings to be cleaned into a basket made of some coarse mesh wire screen cloth and handle this basket by means of a chain hoist mounted on a trolley that runs over the vat.

The basket with its load is lowered into the boiling fluid and permitted to remain there for a sufficient time to loosen all foreign material, as well as old paint. Then it is removed and cleaned with clear water. After such a treatment it is usually possible to take the fittings apart and thoroughly inspect them. Such replacement parts as are needed are used. The fittings are reassembled and tested and put back into stock.

In the June 19, 1930, issue of The Oil and Gas Journal, page 80, you will find an article about reclaiming old oil-field material that may be of interest to you.

BENEFITS OF SHOOTING

I want to ask a few questions about torpedoing oil wells with nitroglycerin. Is it customary to torpedo any oil well that does not start flowing when it is brought in? In just what way is the oil production increased? I mean by this does the explosion form a big hole at the bottom of the well into which oil from the surrounding sand flows, or does it loosen up the sand for some distance ' ck from the hole, thus making it easier for the oil to flow towards the hole? Is it common practice to torpedo old pumping wells in which the production has fallen off?—W. A. K.

The torpedoing of oil wells, or shooting, as it is more common to call it, is restricted largely to fields in Ohio, Pennsylvania, West Virginia, Illinois, Kentucky, Oklahoma, Kansas, Texas and Wyoming, where the producing formations are hard, close-grained sandstones and limestones through which it is especially difficult for oil to flow. Three general types of conditions which lead to the shooting of wells to increase production are enumerated by Prof. H. C. George in his work on "Oil Well Completion and Operation":

1. At the time the well is completed, in order to test a showing of oil or to increase the production of a small well by breaking down the sand or creating cracks or fissures in the formation. Shooting the pay horizon in small wells or apparently dry holes in some of the oil fields of Pennsylvania and North Texas has resulted in a few cases in "bringing in" flowing wells of 500 to 1,000 bbls. daily initial production.

2. Frequently the daily production of wells declines rapidly after a few weeks or months, and the wells begin to flow "by heads," with increasing length of intervals between flows. Production of such wells often is increased by a shot and they sometimes produce at a greater rate than initially. Some wells are shot repeatedly at regular intervals to maintain production at a high level.

3. Small shots introduced from time to time into pumping wells will cause the sand to cave and expose fresh sand surfaces. Shooting also will enlarge the hole within the sand, affording space in which oil can accumulate. Shooting often produces enough heat to melt accumulations of paraffin on the face of the producing sand.

In reply to your question as to what takes place at the bottom of the hole when a torpedo is set off, it may be said, contrary to common belief, that the explosion does not form a large cavity. It often has been shown that when one of the common types of oil-sand reamers has been run into a well, following the explosion of a large charge of nitroglycerin, the hole is only slightly larger than the bit used in drilling. There may be some shattering and cracking of the sand for a short distance back from the walls of the hole, but probably most of the force is expended toward the surface, as this usually is the line of least resistance. The forces of the explosion in an upward direction would tend to lift and separate the strata, giving a better opportunity for oil and gas to flow under less resistance along the bedding planes into the well than would be the case if all the oil and gas movement were through the sand pores into the well.

In loosely consolidated sands small shots will produce a series of vertical concentric cracks in the sand which usually are parallel to the drill hole and at right angles to the bedding planes.

Why Was It Called That?

SHOLOM ALECHEM

The Sholom Alechem area in southern Oklahoma was named that in honor of the Sholom Alechem International, oil men's order of good fellowship founded in 1923 by Bill Krohn, who as an oil writer was able to give the district its unique label. It was the first pool developed in southern Oklahoma after the founding of the organization, and as Mr. Krohn cherished a desire to name a pool after the fraternity, this one got the title. The Hebrew words "Sholom alechem" mean "Peace be unto you," and they were used as a salutation in biblical days. Among oil men of many nationalities and religious faiths in southern Oklahoma there had grown a custom of repeating this old Hebrew form of greeting years before Mr. Krohn established the Sholom Alechem International. Organization of the order was prompted by the spirit of good fellowship manifested by oil men in thus approaching each other and it was sought to perpetuate this spirit.

NATURAL GAS DEVELOPMENTS

Casper, Wyo., Franchise Before Court and Council

CASPER, Wyo., Aug. 6.—The city of Casper has filed a petition in Natrona County District Court asking that its rights under the present natural gas franchise be construed in its proposal to acquire the physical properties of the New York Oil Co.'s natural gas distributing system within the municipal limits of the city.

So far as known there has never been a similar case in which a city has taken back a franchise once granted.

Under the terms of the ordinance the city recently appointed G. M. Orr of Minneapolis as its appraiser and the New York Oil Co. appointed J. M. McIntire, manager of the New York Oil Co., appraiser for the gas company. The question of their legal authority arising, the third appraiser has never been chosen.

It is understood that City Attorney S. S. Combs is drawing contracts to be presented to the Lakota Oil & Gas Co. and subsidiary concerns relative to furnishing the city with gas and helping to finance the city in taking over the natural gas distributing system.

The contract proposed to be entered into by the city and the Lakota Oil & Gas Co., prospective operators of the gas system, whereby municipal ownership and operation can be gained, was discussed during the semimonthly meeting of the mayor and city council. It proposes that in the event the city proceeds with purchase of the New York Oil Co. property, the Lakota company will advance the necessary sum to pay the appraisal price, and that, "in consideration of this advancement, the city will give the company a 40-year lease on the property, liquidating the sum received by payment of one-fortieth of the sum each year, and delivering to the Lakota company serial bonds or pledge bonds as evidence of indebtedness; these bonds to be retired solely out of the rents or profits to be derived from leasing or operation of the property."

LONE STAR OKLAHOMA SURVEY

FORT WORTH, Tex., Aug. 8.—Appraisal of Lone Star Gas Co. properties in Oklahoma is being started at Gas City, Okla., by engineers of Hawley, Freese & Nichols, Fort Worth engineering firm. Lines, wells and compressor stations in 23 Oklahoma cities will be studied.

Marcin C. Nichols said the survey would be completed by September 1 and will be presented to the Oklahoma Corporation Commission and the Texas Railroad Commission to determine if the company's gas rates should be lowered. The engineering firm made a survey of Lone Star properties in Texas a few months ago.

SOUTH DAKOTA SURVEY

E. P. Rothrock, state geologist of South Dakota, is making reconnaisance survey of western South Dakota as to its mineral resources. It is stated he will recommend to the next legislature that an appropriation be made for a general survey and mapping of all oil and gas structures in southwestern South Dakota.

ILLINOIS INCREASE DELAYED

CHICAGO, Aug. 8.—The Illinois Commerce Commission has suspended until December 16 and 23 the increased gas rate schedules, filed recently by Public Service Co. of Northern Illinois and Western, United Gas & Electric Co. which serve most of Chicago's suburbs. The companies had asked that the higher rates go into effect August 15 and August 1, respectively.

Natural Gas Reserves in Turner Valley Will Be Conserved by Regulations

CHATHAM, Ontario, Aug. 6.—The possibility of the depletion of the Turner Valley gas supply within a measurable period has led to renewed interest in natural gas reserves in various parts of Alberta.

The deep lime production in the Turner Valley Field was first tapped in October, 1924. Before that time the Canadian Western Natural Gas, Light, Heat & Power Co. which supplies Calgary, Lethbridge and a number of other communities, had drawn its chief supply from the Bow Island Field through a 160-mile pipe line. Shortly before the Turner Valley Field came into production, the Canadian Western company had developed additional gas at Barnswell and had also opened an important field at Foremost. In recent years this earlier production has been held in reserve, and the company has supplied practically all its consumers with Turner Valley gas.

Alternative sources of supply for the Canadian Western system will be largely found in southern Alberta, in fairly close proximity to the existing pipe lines. Before 1924 the Bow Island Field was largely depleted. Three years ago the company commenced repressuring the old field and pumping into it surplus gas from the Turner Valley Field. A recent statement of the company revealed that approximately 3,000,000,000 feet of gas has been stored in the Bow Island wells, and repressuring is continuing at the rate of 5,000,000 feet a day as wells are reconditioned. Thus the old field constitutes a fairly substantial reserve to which further extensive additions can and will be made before a point is reached where the Turner Valley production is insufficient to meet the needs of the Canadian Western system.

The Foremost Field, opened originally by United Oils, Ltd., of Calgary in 1915-16, was further developed by the Canadian Western company between 1923 and 1927. Five wells are listed as producers, but have been shut in almost continuously in recent years. The wells are large, the best making perhaps 8,000,000 feet a day; and the field, which has been only slightly drilled, can be materially extended.

The Barnwell Field, further north and west, is apparently not so extensive. Of several wells drilled between 1918 and 1923, two are listed as producers. This production is now controlled by the Canadian Western company, which also has leases on several potential but untested structures.

The only other commercially productive gas field in southern Alberta is the municipally owned Medicine Hat Field, with its adjacent Redcliffe area. There are, however, a number of areas in southern Alberta where gas has been proven in commercial quantities but which are shut in for lack of any market.

The most important of these is probably the Rogers-Imperial well east of Coutts, in Section 29-1-11w4. This well, probably the largest in Canada, was drilled a number of years ago; it had a measured flow around 60,000,000 feet a day, and was shut in for a number of years. It is now controlled by Range Oil & Gas Co. of Calgary which has exported gas, but not in very large quantities, to Montana. There has been very little drain on the immense potential production of this well.

In the same general area, Imperial Oil's No. 1, Erickson Coulee, Section 8-1-12w4, has a reputed potential production of 10,000,000 feet, which has been shut in since 1927. Further east and south, Eagle Butte Oil Co., readed by C. E. Roth, in 1929 and 1930 drilled two wells in the Cypress Hills area. No. 1 was reputed a large gasser, and the Cypress Hill structure is thought to be a good prospect for further development.

Northwest of the Medicine Hat Field, between 1922 and 1926, some gas production was encountered in wells drilled in the Many Islands Lake area, though neither of them appears to have been a large producer.

A more recent development is on the Alberta end of the Reserve Dome structure, where Mayland Southern's No. 1, Section 4-1-9w4, last year encountered strong gas flows in several sands but was abandoned this spring when deeper drilling failed to strike oil.

Gas has been encountered in smaller quantities in a number of wildcat tests in various parts of Southern Alberta. Gas showings have also been met in tests on several foothill structures between Turner Valley and the international boundary; but no large fields have yet been opened.

In east-central Alberta, Northwestern Utilities, Ltd., has large gas reserves, estimated at 125,600,000 feet a day, in the Viking and Kinsella Fields. The Wainwright Field has considerable gas shut in, in addition to the production of the Maple Leaf Oil Co. wells, which is piped to Wainwright.

In the north, there are undoubtedly substantial gas reserves in the Pelican Rapids area on the Athabaska, where the famous "government well" burned wide open for 25 years. At one time it was planned to pipe gas to Edmonton from this field; but development of the nearer production at Viking made this unnecessary. Large gas flows have been encountered in the Peace River district; and further west, in the Pouce Coupe district, Imperial Oil's No. 1 Pouce Coupe, drilled in 1923, has a shut-in production of 10,000,000 feet a day.

While the Turner Valley shows a considerable decline in rock pressures, especially in the older sections of the field, it is expected that conservation measures will considerably prolong the life of gas supply. Apart from Turner Valley, the Canadian Western Natural Gas Co. has considerable reserves of its own in Bow Island, Foremost and Barnwell; and there are several areas from which additional gas may be secured, and structures where new fields may be opened. Under the present conservation measures restricting the Turner Valley flow to 200,000,000 feet a day, and even under a proposed further restriction to 100,000,000 feet, the aggregate output of the field will still be in excess of the peak demand of the Canadian Western system. Under existing agreements, however, the Royalite Oil Co. has an exclusive contract to supply gas from this field to the Canadian Western company.

TO LEASE ELDRED LINE

HARRISBURG, Pa., Aug. 8.—The Public Service Commission has been asked to approve the lease of 4.81 miles of pipe line near Eldred by the Northern Pipe Line Co. to the North Penn Gas Co. The North Penn operates in Tioga, Potter and McKean Counties and plans to use the leased line for enlarging its field of operations.

Turner Valley Waste Gas May be Used for Ceramics

CHATHAM, Ontario, Aug. 6.—Utilization of waste gas from the Turner Valley Field for the development of an important clay products industry is suggested in a report by Prof. W. G. Worcester of the University of Saskatchewan, following an investigation of clay and shale resources of the Turner Valley and adjacent areas. Professor Worcester was assisted in field work by J. W. Craig, ceramic engineer, and J. Cameron Worcester.

Some 82 samples, taken from seven different formations, were tested, and though none proved to be refractory or suitable for pottery other than red ware, possibilities of utilization for commercial clay wares were indicated. Lack of rail transportation from Turner Valley and the heavy nature of the probable products were factors unfavorable to development of an industry; but it was suggested that a pipe line be laid from the Turner Valley Field to nearby clay and shale deposits convenient to a railroad with a view to developing an industry where transportation was available. It was felt that utilization of gas which under any conservation scheme would be wasted would facilitate the development of an important industry whose products might include paving brick, roofing tile, red terra cotta, haydite and calcined shale.

Kansas Grants Rehearing in Cities Service Case

TOPEKA, Kans., Aug. 5.—The Public Service Commission will reopen for further hearing the Cities Service Co. gas case, in which it recently ordered rate reductions by subsidiary distributing companies serving customers in nearly 100 cities and communities in Kansas.

Announcement that the commission would grant a rehearing was made by Commissioner Thurman Hill who said the rehearing was granted only as to the matter of alleged decreased earnings of the Cities Service Gas Co. in the fiscal year ended June 30, and denied as to 50 other reasons set out by 10 Cities Service distributing companies in their applications for a rehearing.

Evidence on the one point, Mr. Hill said, would be received by the commission August 15. The rate reductions ordered by the commission effective August 1 would be suspended pending outcome of the rehearing.

Explaining the commission's action today, Commissioner Hill said: "Under the recent Supreme Court decision in the grain rate case, it was held that where an allegation is made of decreased earnings, caused by depression, it is the duty of the commission to receive evidence of this character showing the present situation as to earnings. The commission in all fairness to the gas companies intends they shall have a fair hearing."

MEXICO, MO., FRANCHISE

MEXICO, Mo., Aug. 8.—The Mexico city council has voted unanimously to accept the decision of the Public Service Commission which would force the Missouri Power & Light Co. to sell natural gas in Mexico without a franchise. The decision was to become effective August 15. The council has been split 4 to 4 on granting the company a 14-year franchise and still maintains a deadlock. The power company is expected to appeal the case and four of the eight councilmen are not in favor of carrying the fight through the courts, but would grant the franchise.

Oil refineries, paper plants, steel mills, power plants, chemical plants, irrigation projects—in fact every industry requiring large amounts of well water will be interested in this new application of Toncan Copper Molybdenum Iron to large strainers, a product which should find ready acceptance among large users of water and who until now have been dependent upon strainers of quickly-rusting ordinary iron and steel.

The strainer illustrated was manufactured by A.D. Cook, Inc., Lawrenceburg, Ind. It is 26-inch diameter and 5-feet long. Cold drawn Toncan Iron bars and flat wire were used. The openings in the strainer are three-sixteenths inch and the wire is the same width, giving an effective inlet area of approximately 50 percent. Such strainers can be manufactured to any length to meet individual well requirements.

As the rust-resisting properties of Toncan Iron—an alloy of refined iron, copper and molybdenum—become better known, its application extends into one new field after another. Many of its uses as pipe and as sheets appear in "Pipe for Permanence" and "The Path to Permanence," two sixty-four page books. Write today for your copies of both books.

REPUBLIC STEEL CORPORATION
GENERAL OFFICES YOUNGSTOWN, OHIO

PERSONAL PARAGRAPHS

H. P. Taubman, of the Taubman Supply Corporation, is spending the week in Texas.

* * *

Jake Iucker, manager for Olson Drilling Company in the Rocky Mountain region, is spending some time in Kansas.

* * *

S. W. Emmerson, of Cushing, Okla., is en route to Syria where he will work on construction of the Irak Pipe Line.

* * *

John M. Crawford, president, Parkersburg Rig & Reel Company, Parkersburg, W. Va., recently sailed for Ireland for a short vacation trip.

* * *

C. E. Whitney, sales manager, Baker Oil Tools Company, Huntington Park, Calif., recently completed a tour of the Mid-Continent oil fields.

* * *

Harold W. Riley, for six years secretary-treasurer of the Calgary, Alberta, Stock Exchange, and well known to the western Canada oil fraternity, has resigned.

* * *

F. H. Dunn, vice president of the H. F. Wilcox Oil & Gas Company, has returned from a vacation visit with relatives in the old home town, Worcester, Mass.

* * *

Mr. and Mrs. C. W. Chancellor of Oklahoma City announce the birth of Master Camden Chancellor at St. Anthony's Hospital. Mr. Chancellor is with the Sinclair Prairie Oil Company.

* * *

Paul Guarin, formerly chief gauger of the Shell Petroleum Corporation with headquarters in Tulsa, has been transferred to Greenwich, Kans., as assistant district superintendent.

* * *

Neal H. Anderson, until last month California state oil umpire, departed a few days ago for the Canadian Northwest on his first extended vacation since 1929, when he became umpire.

* * *

Max J. Kaplan, president of the Lakota Oil & Gas Company, and his son, Sheldon, and A. L. Beiman of Minneapolis, Minn., have left Casper, Wyo., for their home in Minneapolis.

* * *

M. J. Flanagan, of the Gaso Pump & Burner Manufacturing Company, accompanied by Mrs. Flanagan, visited Bradford, Pa., and Lockport, N. Y., en route for an automobile tour of Canada.

* * *

William Keck, president of the Superior Oil Company and chairman of the executive committee on statewide curtailment, has returned to Los Angeles following a business trip through the Mid-Continent and Texas fields.

* * *

A. Henricksen, chief chemist for Continental Oil Company, Ponca City, Okla., visited the company's Glenrock, Wyo., refinery while enroute to Yellowstone National Park. Mr. Henricksen was accompanied by his wife.

* * *

T. A. Dines, president, George H. Jaques, vice president and general manager of the Midwest Refining Company, and B. F. Fehlman, treasurer of the Mid-Northern Oil Company (Midwest subsidiary), were in Casper for a conference with Casper executives.

* * *

A number of the members of the geological party making a study of northern Wyoming and southern Montana formations under the direction of Dr. W. T. Thom, Jr., of Princeton University, recently made an airplane survey over the country in the region of Cody, Wyo. Besides Doctor Thom there were Dr. Rollin T. Chamberlin of the University of Chicago, Dr. John T. House of Hamilton College, Clinton, N. Y., and Dr. Walter H. Bucker of the University of Cincinnati, Ohio, in the party.

W. D. Kleinpell, geologist, with the Union Oil Company of California, has resigned.

* * *

W. K. Warren, president of Warren Petroleum Company, has been spending some time in Colorado.

* * *

E. A. Landreth, president, Landreth Production Corporation, Fort Worth, Tex., was in Tulsa on a short business trip last week.

* * *

Winthrop P. Haynes, of the geological department of the Standard Oil Company (New Jersey), has been transferred from Paris to London.

Men of the Industry

DR. J. FRENCH ROBINSON

Born in West Virginia in 1890, Dr. J. French Robinson, geologist and engineer, was educated in the public schools and in 1915 received his degree from the University of West Virginia as a Bachelor of Science in civil engineering. In 1918, he was awarded the degree of Master of Science and in 1929 the University of Pittsburgh made him a doctor of science.

From 1914 to 1918 Doctor Robinson was assistant geologst for the Baltimore & Ohio Railroad, making investigations in oil, coal and mineral resources in ground contiguous to that system. From 1918 to 1919 he spent a year as engineer and superintendent of the Ford Run Coal & Coke Corporation. The next year was spent in the Southwest, as geologist of the Seneca Hill Oil Company. In 1920 and 1921, Doctor Robinson was assistant state geologist of Pennsylvania. In the latter year he became affiliated with the Standard Oil interests and as geologist and engineer he covers the Pennsylvania, West Virginia, Ohio and Kentucky fields. With the advent of the new field in Tioga County, Pennsylvania in September, 1930, Doctor Robinson became manager of the Lycoming Producing Corporation, the New York State Natural Gas Corporation, and the Keuka Construction Corporation.

Doctor Robinson is a member of the American Institute of Mining and Metallurgical Engineers, American Institute of Petroleum Geologists, American Petroleum Institute, American Mining Congress, Engineers Society of Western Pennsylvania, American Gas Association, Pittsburgh Field Club, Stanton Heights Country Club, and the Pittsburgh Athletic Association.

H. R. Leland, of the Leland Equipment Company, has returned from a trip to California.

* * *

M. E. Chapman, assistant to R. S. Knappen, Gypsy Oil Company, Tulsa, is spending his vacation in Colorado.

* * *

Harry Miller, district manager of the Detroit Graphite Company, whose headquarters are in Chicago, visited Tulsa last week.

* * *

W. F. Nightingale, geologist for the Ohio Oil Company, with headquarters in Rock Springs, Wyo., visited at the company's offices at Casper, Wyo.

* * *

J. E. Richards, National Tank Company, Tulsa, flew to Los Angeles, Calif., Tuesday of last week to join his family, already there, for his vacation.

* * *

E. B. Shawver, an independent oil operator with headquarters in Wichita, Kans., has recently returned from a visit to his home in Braxton County, West Virginia.

* * *

Russell Conkling, district geologist for the Shell Petroleum Corporation, Fort Worth, Tex., is spending his vacation at his home in Norman, Okla. His family accompanied him.

* * *

H. L. Chittenden, director of the British-Borneo Petroleum Syndicate, Ltd., has completed an inspection trip of the concessions which his company recently secured in Brunswick, Germany.

* * *

J. Wesley Root, Jr., service department, Parkersburg Rig & Reel Company, Parkersburg, W. Va., is making the rounds of all the warehouses and stocks of the company in the Mid-Continent district.

* * *

J. F. Hosterman, district geologist for the Amerada Petroleum Corporation, San Angelo, Tex., wife and daughter, have returned from a two weeks' vacation trip to points in Oklahoma, Kansas City and Shreveport.

* * *

Franklyn E. Wolfe, of Fort Worth, Tex., has been appointed by Federal District Judge Wilson as receiver for the Lloyd Oil Corporations of Texas and Delaware. Mrs. Marie C. Blodgett, a Pennsylvania stockholder, asked for a receivership for the two concerns.

* * *

Ralph B. Lloyd, acting chairman, on behalf of the Executive Committee on Equitable Curtailment, Los Angeles, Calif., presented a handsome wrist watch to Neal H. Anderson in recognition of his services as state umpire, from which position Mr. Anderson recently retired.

* * *

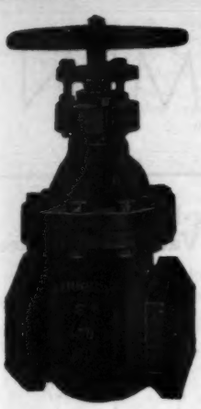
John R. and Walter Sallee, oil operators of Alberta, Canada, have moved to San Angelo, Tex. John R. went to Alberta in 1929 in charge of field operations for the Sheldon-Burden Drilling Company. Walter recently returned from Java, where he was in charge of drilling operations for the same company.

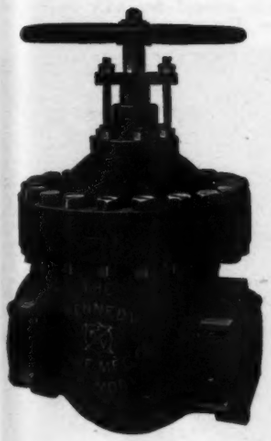
* * *

W. K. White, oil operator, a resident of Hollywood, Calif., is visiting old friends in the Lima Field, with Toledo, Ohio, as his stopping place. Mr. White operated in the Ohio and Kentucky fields for many years before going to the California field. He will spend some time in the Kentucky fields before returning to the coast.

* * *

R. W. Richmond, formerly Texas Railroad Commission umpire at Yates Pool and East Texas oil field, is now superintendent of production for the Girard Corporation, Dallas, Tex. The Girard Corporation acquired 44 producing leases in the Powell Field from the Humble Oil & Refining Company, Houston, Tex., and Mr. Richmond is in charge of this property.





From 300-lb. test to 2500-lb. test

a gate valve for every oil industry service

THE Kennedy list of valves for the oil industry includes types for low, medium, extra heavy and extreme pressures, with screwed or flanged ends, and with stationary or rising stems. Each type is designed with special reference to service requirements in refineries, oil and gas fields, pump houses, and pipe lines. Bodies are heavily proportioned with exceptional strength and rigidity; disc mechanisms have thoroughly proven their easy and positive operation; stuffing boxes, flanges and pipe end hexes are exceptionally deep. Standardizing on Kennedy Valves is a convenience because it gives you a single source for all your valve needs. More than that, it assures dependable operation and lastingly reliable service no matter what may be the fluid, pressure, temperature or frequency of operation.

The Kennedy Valve Mfg. Co., Elmira, N. Y.

Representatives in principal oil centers.

KENNEDY

VALVES~PIPE FITTINGS~FIRE HYDRANTS

This House Regulator Gives PROTECTION *that has* Never Failed

FOR the domestic or the small industrial user whose gas is taken from a high pressure line, some protective measure must be taken that is positive and unfailing. The Fulton House Regulator is made to operate with perfect safety and to regulate to the uniform low pressure desired for use, regardless of what the outside pressure may be, up to 500 pounds. It is equipped with an automatic cut-off which closes the port of the regulator valve if the pressure at any time fails or the gas is turned off; and it remains closed until opened again by hand. An accident has never been known where a Fulton House Regulator was in use.

The Chaplin-Fulton Manufacturing Company is the oldest builder of gas regulators. The C-F line includes appliances of all sizes, for all pressures, to cover the whole range of gas control. Correspondence is invited.

Write for our catalog. Also ask for our booklet of directions for setting and operating all types of gas regulators. Gas men will find both of value.

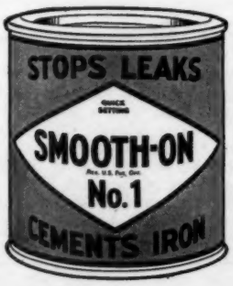
THE CHAPLIN-FULTON MFG. COMPANY
28-40 Penn Avenue CF **Pittsburgh, Pa.**

FULTON REGULATORS

" There's no excuse for that leak! "

SMOOTH-ON No. 1 in a
SMOOTH-ON CLAMP
will stop it in a hurry —and you don't have to take the line down

THIS combination makes a perfect barrier against thin hot or cold oil and gasoline. Smooth-On sealing of cracks, breaks, porous spots and joints in apparatus or lines containing these hard-to-handle fluids assures absolute and lasting tightness even where the vibration and pressure and temperature changes are severe.



Correct application of Smooth-On No. 1 for hundreds of every day and emergency jobs is explained and illustrated in the Smooth-On Handbook, which should be on your desk for quick reference.

Ask us for the SMOOTH-ON *Handbook and get* SMOOTH-ON *No. 1 in 1 or 5-lb. can or 25 or 100-lb. keg and* SMOOTH-ON *Pipe Clamps in any size from your dealer or if necessary from us.*

SMOOTH-ON MFG. CO., Dept. 66,
570 Communipaw Ave., Jersey City, N. J.

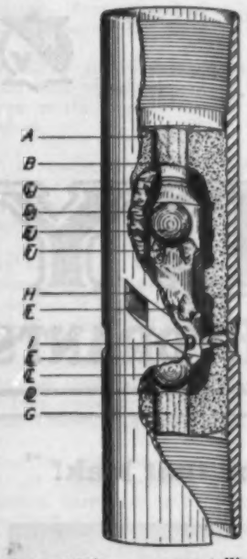
Do it with **SMOOTH-ON**

NEW AND IMPROVED EQUIPMENT

Baker Announces New Cementing Equipment

Baker Oil Tools, Inc., of Huntington Park, Calif., has introduced an improved means of cementing off a string of casing at any desired point where the whirler cementing collar is positioned in the string. The whirler collar usually is placed between screen pipe and casing of the same size and introduced into a well which has been prepared for completion.

The Baker whirler cementing collar consists of a special seamless steel collar or coupling approximately 28 inches in



length containing a non-metallic valve mechanism with side circulating passages and ports. It has the Baker canvas basket and springs below the collar, and is a complete device, made up as a unit.

The plug (A) is made of Baker formula concrete, which assures great strength, yet may be drilled out and circulated away readily without any danger of cracking or shattering the cement job after it is completed.

The circulating passage (B) affords an unrestricted flow for the mud fluid and the cement.

The upper ball valve seat (CU) and the lower ball valve seat (CL) are able to withstand a compressive pressure with a factor of safety greater than the ultimate collapsing strength of the casing.

The Baker bakelite ball check valve assembly (DU) is placed in its normal position at the upper end and in a reversed position (DL) at the lower end. In cementing, the upper valve (DU) opens, the ball (EU) resting on the upper ball valve stop (FU), which allows a free passage of the cement. The lower valve closes, the ball (EL) resting on its stop (CL). This causes the cement to flow out through the whirler ports (H).

The ball (EU) is made from special bakelite of great strength, which withstands a hydraulic pressure of 137,000 pounds, 7,731 pounds compressive pressure to the square inch. It floats in mud fluid or cement.

The valve stops (FU and FL) are designed to have ample strength and to allow a free and unrestricted circulation of fluid through the valve passage. The lower inlet port cleaning passage (G) serves to keep the whirler ports and the side hole passages (I) open and free.

Notes About Trade Literature

The Reading-Pratt & Cady Co., Inc., Bridgeport, Conn., has issued an eight-page catalog describing its bar stock valves. This line is precision turned from high grade bar stock metal, and is made in globe, angle and cross patterns of bronze, carbon steel, and stainless steel. In addition there are a special Thru-Port valve and a "Roto-Control" valve for range oil burners.

—

Numerous applications of inorganic flux coated welding electrodes are described in a new booklet, sent on request, published by the Metal & Thermit Corp., 120 Broadway, New York, which earlier this year introduced Murex heavy mineral coated electrodes. The booklet describes the welding of mild steel and boiler plate, stainless steel alloys, manganese steel, high carbon steel and stainless iron.

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Engineering information on temperature control is contained in a 48-page illustrated bulletin issued by the Foxboro Co, Foxboro, Mass., describing the operation and construction of Foxboro temperature controllers and their uses. The sections on bulbs, charts, valves and accessories are of special interest

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Small tool catalog, No. 32, is being distributed by the Greenfield Tap & Die Corp., Greenfield, Mass. The entire line of taps, dies, screw plates, twist drills, reamers, gauges, pipe tools and miscellaneous items of this company are listed and described.

The Athey Truss Wheel Co., 130 North Wells Street, Chicago, has for distribution an illustrated eight-page bulletin giving detailed information regarding Forged-Trak wheels.

—

The Bethlehem Foundry & Machine Co., Bethlehem, Pa., has available a complete set of new bulletins covering Bethlehem standard processing vessels, thermocoil apparatus, accessories, materials of construction and roasters.

—

The No. 17 Beaver pipe threader and power adapter is the subject of a folder distributed by the Borden Co., Warren, Ohio.

—

The Stearns Roger Manufacturing Co., Denver, Colo., has for distribution a new bulletin (No. 3,215-M) which shows the variety and extent of its work. On the front page it lists under seven major headings, construction work it does. On the inside pages there is a representative list of products which it sells with 19 illustrations of different equipment manufactured in its shops.

—

A bulletin describing a new portable burette assembly for dispensing volatile or other liquids as used in making heptane-octane mixtures in knock-testing laboratories has been issued by the Yonkers Laboratory Supply Co., 515 West 132nd Street, New York. The bulletin also describes equipment used in making gasoline ageing tests and for determining sulphur in naphthas.

Ditcher Designed for Work in Tight Places

The Buckeye Traction Ditcher Co., Findlay, Ohio, designed its new Model 12 wheel-type service ditcher for greater speed in handling jobs in cramped quarters or in open country. The ability of the Model 12 to dig ditch in tight places is said to have been demonstrated on a variety of jobs, some of them between buildings, down narrow alleys or close to trees and poles. Its eight instantly available digging speeds, from 27 inches to 123 inches per minute, make it possible to dig at the maximum practical speed permitted by the nature of the soil and other operating conditions.

Separate control levers for each wheel make for easy steering. Although it has full-length alligator traction units, the machine can be turned completely around within the radius of its length. This maneuverability is especially valuable in the tight places. Ample power and a choice of two road speeds help make the most of this nimble surefootedness, taking the machine up any workable incline.

Overall width of the Model 12 Buckeye is only 61 inches, with a 58-inch width over the alligator wheels. When cutting a 22-inch ditch, the machine extends only 19½ inches beyond the edge of the ditch. From the center of the ditch to the outside of alligator wheels is 29 inches. Cutting widths available run from 11½ to 22 inches, with the maximum cutting depth 5½ feet.

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The Bridgeport Machine Co., Wichita, Kans., which gave its employes annual vacations on full pay until last year, has resumed the practice, each employe getting his vacation with pay as formerly.

Ingersoll-Rand Has New Motorpump Line

A new line of Cameron motorpumps is announced by the Ingersoll-Rand Co., Phillipsburg, N. J. There are sizes from one-quarter to 25 horsepower, good for 5 to 800 gallons per minute. The motorpump is a complete pumping unit, with built-in electric motor. Its applications include refineries, power houses, air-conditioning equipment, etc.

The one-piece bronze enclosed hydraulically balanced impeller is mounted on the motor shaft extension. Stationary renewable wearing rings seal the impeller hubs against leakage. The motorpump has a deep stuffing box with water-sealed passage and needle-valve control. Ample space and a split gland make repacking easy. A renewable bronze sleeve protects the shaft where it passes through the stuffing box.

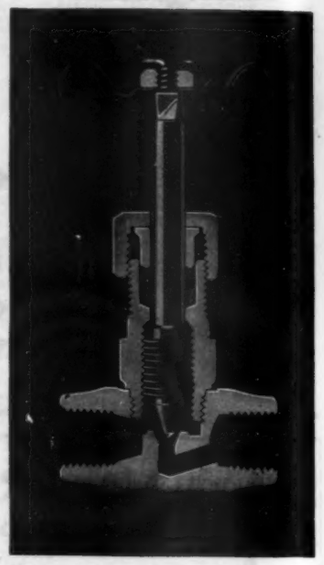
All rotating parts are mounted on a large diameter, one-piece, heat treated steel shaft, insuring rigidity and maintaining rotor alignment. Wearing rings, shaft sleeve, ball bearings, etc., are readily removable. Ball bearings of liberal capacity carry all radial and thrust loads. A water flinger gives additional protection against moisture entering the bearing. Grease deflectors prevent lubricants from leaking out of bearing and along the shaft. Bearings need only occasional lubrication.

The rotor is of the solid type and practically indestructible. Squirrel cage bars, end rings and fan blades are cast as one unit with no joints. The cartridge type bearing housing, bolted in machined cylindrical pockets, maintains the original alignment of the rotor. Dirt and moisture cannot enter the motor bearings.

Reading-Pratt & Cady Valve Easily Cleaned

The Reading-Pratt & Cady Co., Inc., Bridgeport, Conn., announces the Thru-Port valve, a new idea in valve design. It is particularly recommended for refinery and other services where coking or similar troubles are encountered, as it can be cleaned by running a rod through the line.

The valve is precision-turned from high quality carbon steel. The stems are specially treated for high temperature service. The renewable slip-on disc for



stainless steel is free on the stem to prevent sticking in the body and galling of seating surfaces. It is made nonrotatable to prevent possibility of horizontal scratching of the seating surfaces. When wide open the disc is entirely out of the fluid passageway. The relief passage for the escape of fluids caught under the plug as it closes is seen in this illustration. Body, bonnet, packing nut and gland are parkerized for protection against corrosion.

Keystone Introducing Widely Useful Shovel

The Keystone Driller Co. of Beaver Falls, Pa., has produced a 1-yard machine of exceptional flexibility and equally usable as a 1-yard standard shovel, a 1-yard skimmer machine, a pullscoop ditching outfit and crane with clamshell. By the use of very large V-type friction wheels in the main drum and planetary gearing it has been possible to obtain an unusual variability in control of line speed. As a matter of fact, the operator is able to use any line speed from nothing up to 120 feet per minute for skimmer, standard shovel and pullscoop and 160 feet per minute for crane operation.

Carrying the same principle of design into the planetary sluing mechanism, it has been found possible to give the machine, at the will of the operator any desired sluing speed from zero to 5¼ revolutions per minute. Problems of control have been solved in this way. It is practicable to get maximum efficiency with any one of the widely varying utilities offered with the machine. Roller and ball-bearings are used in planetary gears, and under main drum and transmission shafts.

The six types of buckets or utilities,

available with the Keystone Model 17, require only three different booms: First, the skimmer-pullscoop 21-foot double channel boom for operating the heavy, plunger type skimmer bucket and the characteristic line of Keystone pullscoop ditching buckets; second, the standard shovel boom, box girder type, with split 16-foot dipper sticks; third, the 40 to 50-foot crane boom, lattice type, special tubular construction. In addition, a handy extension for the skimmer-spullscoop boom, making it either 24 or 30 feet long, enables the operator to change quickly from either skimmer or pullscoop to clamshell operation.

Polaricode Possesses Great Control Speed

The Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., announces an entirely new supervisory control, Polaricode, which is said to set a new standard of control speed, permitting selection and operation of the control circuits of any piece of remotely controlled apparatus in less than one second. The speed is accomplished by a principle known as "direct selection."

Polaricode is available for use on two and four-line wires. The two-wire type controls up to 25 remote apparatus units and the four-wire type controls up to 2,500 units, all at the same high speed. Both the two and four-wire types permit several remote stations to be operated on the same two or four wires. In addition, remote metering and remote synchronizing may be obtained without the use of extra line wires.

Polaricode is offered for practically any application where supervisory control is required, such as the control of any type or size of remote station on power systems, oil line pumping, etc. Polaricode uses the same "all-relay" construction employed with previous Westinghouse designs and is composed of simple, mechanically uniform, telephone type relays like the ones originally used for supervisory control some 11 years ago.

Superheater Co. Putting New Unit on the Market

In answer to the demand for a superheater easy and economical to install in horizontal return tubular boilers, one has been developed by the Superheater Co., 60 East Forty-second Street, New York. This superheater, of compact and simple construction, is standard for all horizontal return tubular boilers. It comprises simply two cast-steel headers, suspended one to each side of the boiler shell, which are connected by detachable tubular elements or units extending around the underside of the boiler. The headers are supported by adjustable clamped steel rods. By raising or lowering the headers, the units are correspondingly raised or lowered in the combustion chamber, which regulates the superheat or final temperature of the steam.

This superheater is automatic in operation. Saturated steam is carried from the boiler nozzle through a connecting pipe to the saturated-steam header. From there it passes to the superheated-steam header, through the units under the boiler, during which it is subjected to the relatively intense heat of the gases of combustion in the combustion chamber. The steam, then superheated, passes to the main steam line for use in the plant.

Graphic Instruments Contain Innovations

A new line of graphic recording instruments announced by the Esterline-Angus Co., Indianapolis, Ind., embodies improved features. The spring clocks which drive the chart are made of removable units, escapement, spring barrel and gear train. These interchangeable clock units can be quickly dropped out and replaced in the field, without putting the instrument out of service. Another innovation is that all three springs in the clock are wound at one time by means of a simple crank, instead of a clock key. This is done from the front of the meter, so that it is not necessary to space instruments apart on a switchboard in order to leave room for winding the clock.

All instruments are arranged so that the rolls which drive the chart can be coupled together, accurately synchronizing the charts. The coupling is placed back of the gears which fix the chart speed, so that instruments operating at different chart speeds can be coupled up.

Another interesting development is an instrument for recording quantities which are changing rapidly. The meter operates at a slow chart speed when the values measured are steady, but when sudden and rapid changes are to be recorded, the chart automatically speeds up instantly to 3,600 times the slow speed, and like a "slow motion" film, records the rapid changes which take place. When conditions become normal, the chart is reset to the proper time, and slow speed is resumed.

The line comprises 22 different kinds of recording instruments, including A.C. and D.C. ammeters, A.C. and D.C. wattmeters, A.C. and D.C. voltmeters, speed recorders, vacuum recorders, high and low pressure recorders, frequency and power factor recorders, time and production recorders, motion and position recorders, and water level recorders.

Traffic Dirt Removed With Kerrick Kleaner

The Kerrick Kleaner, a mechanically simple, all-purpose cleaning machine in one compact unit, has been perfected by the Chemical Processes Co. of Los Angeles, Calif. With this machine, which is expected to find wide use in the oil industry, water and soap, or other detergent, are combined in proper proportion and applied in a finely atomized spray at safe temperatures and moderate pressures. The manufacturer says it cannot harm the most delicate surface, properly applied, yet heavily encrusted road oil, grease, dirt, proteins and traffic film are said to be quickly and thoroughly removed.

Hydraulic Roadbuilder Embodies New Features

The LaPlant-Choate Manufacturing Co., Inc., Cedar Rapids, Iowa, announces a new hydraulic roadbuilder for use on the "Caterpillar" 35 tractor. Certain features in design make this new roadbuilder a particularly useful tool for building mountain roads, trails, firebreaks or on any other job where it is necessary to cut into a side bank.

The blade, 9 feet 4 inches long, is completely oscillating with adjustments provided so that either end can be locked into any position desired. The blade will oscillate up or down at either end 16 inches. A sharp, all-steel removable cutting bit is provided at each end of the blade. The blade can be set at an angle for backfilling or sidehill cutting work or it can be set straight across for use in bulldozing work.

Other features of this 35 roadbuilder are the 31-inch lift of the blade above ground level; the newly designed main frame and jack which makes it possible to force the blade into the ground 20 inches; a double-acting jack which forces the blade into the ground or raises it out in the hardest going; a design which leaves the tractor drawbar entirely in the clear, making it possible to use the tractor for hauling wagons or any other equipment without removing any part of the roadbuilder; and a reversible and removable cutting edge.

Gasket Withstands Oil at High Temperatures

Not even oil at a high temperature will affect gaskets of a new substance developed in the General Electric research laboratory in Schenectady, N. Y. The exposed edge of the gasket is not attacked, nor does the oil penetrate it. Oil-filled assemblies have been operated on test at from 210° to 230° F. for a year without effect on the gasket and without leaks.

The compound may be used in contact with cemented joints. Neither dilute acids nor dilute alkaline solutions affect the compound.

Designated as No. 1281 gasket compound, the material is a gray or brown, odorless and sulphur-free alkyd resin material, for which glyptal is the G. E. trade name. It is flexible and practically incompressible, and there is no noticeable hardening or stiffening in outdoor exposure tests. At temperatures below zero Fahrenheit the compound is somewhat brittle, but this does not affect its efficiency as a gasket when assembled in a joint.

Bushing assemblies of the compound with porcelain, brass, cast iron and copper have withstood alternate heating and cooling while under pressure and in contact with oil for long periods of time.

Among applications recommended are those where resistance to hot oil is of primary importance, where exposure to naphtha, gasoline, kerosene, benzine and similar solvents may occur, where moisture is to be excluded and oil resisted, where there may be prolonged exposure to ozone, and where electric corona may occur.

Gaskets of the new material are now used in the assembly of solid-type compound-filled bushings for oil-filled apparatus, and between the bushing and the apparatus. Tests have indicated that the gaskets are satisfactory for sealing-ring gaskets for the top of vacuum oil-treating equipment, for hydrogen-filled rotating machinery, under the covers of oil-filled apparatus where exposure to oil is encountered, and under manhole covers of oil-filled switchgear.

At present the material can be obtained in sheets up to 13 by 36 inches, in thicknesses from one mil to one-eighth inch. Round gaskets available at present have a maximum diameter of 12½ inches and a maximum thickness of one-eighth inch, but larger sizes will be made available at a later date.

New Master Stations Have Watertight Case

For use under severe weather or atmospheric conditions, a new line of master stations has been announced by Cutler-Hammer, Inc., 413 North Twelfth Street, Milwaukee, Wis., manufacturer of electric control apparatus. These master stations are operated from levers placed on the side of the case, instead of from push buttons on the front.

It is asserted that an absolutely watertight case is obtained thus. The shafts of the levers operate through stuffing boxes, and the cover joint is sealed by a rubber gasket. The stations use standard, heavy-duty, push button elements, mounted on removable individual molded bases, fully enclosed. They are supplied in all normal ratings in one-button (on and off), two-button (start and stop), or three-button (hoist, lower, stop).

Harvester Adds to Its Crawler Tractor Line

Another addition to its crawler tractor line has been announced by International Harvester. It is the model T-40 six-cylinder Tractractor, a bigger and more powerful unit than the model T-20 placed on the market a few months ago. The T-40 develops a maximum drawbar horsepower of 40 and a maximum engine horsepower of 52 as comfared to the maximum drawbar horsepower of 23 and a maximum engine horsepower of 31 for the T-20. It is especially designed for heavy construction work where push and pull power is required, such as oil field work, and where the going is soft or rough. In operating bulldozers, backfillers, shovels, and snowplows and pulling crawler wagons, scrapers and graders, the new crawler is said to be at its best.

Accessibility of working parts is worthy of mention. Steering clutches, transmission and brakes may be inspected, adjusted or removed through top and rear cover plates. Special dust seals guard every shaft and bearing. Like the model

T-20, the new T-40 is compactly built. The light weight per unit of track area and ample power available fit it for heavy hauling and pushing work over fine sand and soft, mucky soil; over rough, rocky places, and up and down steep slopes. The tractor is easy to operate, for all controls are within ready reach of the driver and there is an unobstructed view from the tractor seat.

The large, positive-acting plate steering clutches, a new crawler-tractor feature, are in the rear compartment of the main frame. The steering brakes are immediately to the rear of the clutches. Efficiency of operation is enhanced by the use of 44 ballbearings. The six-cylinder engine is of valve-in-head design and has removable cylinders of 3⅝-inch bore and 4½-inch stroke.

Griscom-Russell Markets Oil Heater of New Design

A storage tank oil heater placed on the market by the Griscom-Russell Co., 285 Madison Avenue, New York, is distinguished by a unique type of heating element designed to make the unit compact, effective and economical.

The patented G-fin heating elements consist of U-shaped steel pipes having longitudinal fins along the exterior surface of the straight portions of each pipe. These fins are equally spaced about the circumference of the pipe, and are securely fastened by a mechanical process without tinning or similar bond which would limit the operating temperature.

The purpose of the longitudinal fins is to increase the heat-transmitting surface on the outside of the pipes in contact with the oil to be heated for withdrawal from the tank. The total surface of the fins on each pipe is from 4 to 6½ times greater than that of a bare pipe of the same length and diameter.

This unit is economical in steam consumption because it heats the oil locally at the point of withdrawal from the tank. The heater is installed with the shell and heating elements extending into the tank and the steam, drain and oil connections outside the tank. Special provisions in the design of the unit facilitate flow of oil into and out of the shell.

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for May

Runs

	Month	Daily av.
Gulf P. L. Co.	1,362,915	43,643
Texas P. L. Co.	643,808	20,768
Magnolia Pet. Co.	1,052,801	33,961
Empire P. L. Co.	2,221,530	71,662
Cosden P. L. Co.	617,747	19,927
Stanolind P. L. Co.*	2,334,300	75,300
Oklahoma P. L. Co.	3,577,708	115,410
Other lines*	4,805,000	155,000
Total May	16,695,809	535,671
Total April	15,791,460	526,382
Difference	814,349	9,289

Shipments

	Month	Daily av.
Gulf P. L. Co.	1,214,532	39,178
Texas P. L. Co.	1,117,724	36,056
Magnolia Pet. Co.	1,051,524	33,920
Empire P. L. Co.	1,871,648	60,376
Cosden P. L. Co.	624,279	20,138
Stanolind P. L. Co.	3,922,771	126,541
Oklahoma P. L. Co.	3,215,459	103,724
Other lines*	3,999,000	129,000
Total May	17,016,936	548,932
Total April	17,214,286	573,808
Difference	197,350	24,876

Stocks

Sinclair Prairie Oil Co.*	35,080,000
Gulf P. L. Co.-Gypsy Oil Co.	7,548,639
The Texas Company	3,266,613
Magnolia Petroleum Co.	8,332,517
Empire P. L. Co.	5,316,696
Mid-Continent Petroleum Co.	2,603,808
Stanolind Crude Oil Pur. Co.*	16,085,000
Oklahoma P. L. Co.	2,083,165
Carter Oil Co.	2,366,363
Other lines*	16,679,000
Total May	99,361,701
Total April	100,242,156
Difference	980,455

*Estimated. Stanolind pipe line shipments include Texas crude oil.

EASTERN PIPE LINE REPORT FOR MONTH OF JUNE

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for May and June:

	May, '32	June, '32
Nat. Transit	151,951.45	144,953.51
S. W. Pa. P. L.	71,779.11	74,636.04
Eureka P. L.	276,906.64	284,902.07
Buckeye P. L. (Macksburg)	251,442.44	255,814.51
Buckeye P. L. (Cleveland)	12,377.90	12,368.10
Buckeye P. L. (Lima, etc.)	86,475.79	90,909.75
Indiana P. L.	2,672.22	2,132.06
N. Y. Transit	44,012.00	42,716.25
Tide Water P. L.	25,664.15	24,651.04
Pure Oil	423,749.02	397,731.81
Stoll Oil Ref.	58,953.00	39,472.90
Bradford Trans.	427,172.23	419,696.68
Ashland Ref.	.....	139,179.80
Total	1,832,255.95	1,931,155.54
Daily average	59,105.03	64,371.85

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for May and June:

	May, '32	June, '32
Nat. Trans't	569,129.70	531,479.14
S. W. Pa. P. L.	465,620.47	347,391.97
Eureka P. L.	289,963.58	326,763.56
Buckeye P. L. (Macksburg)	231,855.64	271,862.46
Buckeye P. L. (Cleveland)	1,708.49	1,956.38
Buckeye P. L. (Lima, etc.)	1,381,245.31	1,425,243.21
Indiana P. L.	1,188,666.66	1,006,264.12
Southern P. L.	43,893.07	65,383.50
N. Y. Transit	192,967.42	194,532.17
Northern P. L.	167,202.66	98,284.38
Tide Water P. L.	412,438.33	501,453.99
Pure Oil	572,755.77	487,086.69
Bradford Trans.	452,206.39	436,376.77
Tuscarora Dev.	273,873.53	360,897.93
Total	6,243,527.02	6,048,975.19
Daily average	201,404.09	201,632.51

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of May and June:

	May, '32	June, '32
Nat. Transit	678,894.46	704,495.00
S. W. Pa. P. L.	518,480.70	524,603.77
Eureka P. L.	1,224,629.00	1,172,808.19
Buckeye P. L. (Macksburg)	277,198.32	306,904.25
Buckeye P. L. (Cleveland)	36,639.14	30,067.94
Buckeye P. L. (Lima, etc.)	3,160,170.66	3,311,429.11
Indiana P. L.	502,451.61	473,754.90
Southern P. L.	197,231.45	263,226.94
N. Y. Transit	167,583.00	105,904.59
Northern P. L.	216,814.96	211,480.61
Tide Water P. L.	882,349.04	655,876.80
Pure Oil	711,101.37	706,872.31
Tuscarora	9,033.34	8,829.21
Bradford Trans.	253,149.84	257,371.07
Total	8,836,726.89	8,732,724.69
Decrease	72,934.25	103,002.20

Grades of Oil

The following table shows the amount of the different grades of oil held by the Eastern pipe lines at the close of May and June showing gross stocks of the above fields:

	May, '32	June, '32
Pennsylvania	3,082,290.24	3,006,429.19
Lima	527,816.96	500,135.35
Kentucky	9,997.41	10,008.41
Mid-Continent	4,552,128.56	4,467,170.93
Illinois	2,904.86	112,915.02
Michigan	660,588.86	636,065.79
Total	8,835,726.89	8,732,724.69

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1929	1930	1931	1932
January	51,749	75,907	53,939	53,501
February	51,833	79,256	55,163	55,498
March	54,252	76,688	54,331	57,199
April	58,444	84,536	54,914	57,348
May	59,902	70,546	53,344	59,105
June	58,833	75,430	54,110	64,371
July	66,087	68,921	50,723	.....
August	66,087	54,291	51,503	.....
September	67,315	56,595	61,345	.....
October	76,093	58,179	65,595	.....
November	74,831	52,332	59,819	.....
December	74,561	53,999	61,835	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1929	1930	1931	1932
January	165,721	217,623	175,369	186,551
February	159,387	224,355	183,494	169,856
March	161,474	228,846	189,508	188,793
April	169,737	241,845	191,450	202,036
May	184,281	248,383	199,247	201,404
June	185,404	234,401	221,155	201,632
July	194,763	207,094	211,632	.....
August	194,946	205,506	224,166	.....
September	201,214	193,999	217,537	.....
October	191,867	157,675	210,831	.....
November	202,743	146,638	196,425	.....
December	186,257	143,001	176,241	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1930	1931	1932
January	12,220,045	11,831,092	9,023,914
February	12,991,561	11,506,489	8,974,350
March	13,247,217	11,013,162	8,802,192
April	13,233,961	11,044,481	8,908,661
May	13,052,953	10,728,239	8,835,726
June	13,396,855	9,903,349	8,732,724
July	13,268,562	9,569,849	.....
August	13,047,051	9,192,457	.....
September	12,812,018	8,492,431	.....
October	12,437,553	8,417,694	.....
November	11,851,380	8,830,386	.....
December	11,751,952	9,119,032	.....

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, July 1	514,538.45
Runs from wells	477,227.26
Other receipts	56,670.61
Regular deliveries	246,624.72
Other deliveries	358,725.89

The amount of Illinois oil run by the Tide Water Pipe Co. in June was 24,651.06 bbls. Deliveries were 17,078.97 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1932—	Runs	Deliveries
June	501,878.26	263,703.70
1931—		
January	468,429.04	669,573.19
February	429,284.54	461,262.85
March	424,638.23	356,663.26
April	421,814.98	282,532.65
May	483,231.80	322,513.95
June	510,805.78	320,258.13
July	520,009.38	289,219.05
August	476,623.56	393,231.06
September	492,183.83	323,012.50
October	498,124.13	325,834.95
November	470,302.63	281,258.43
December	515,771.28	306,623.19
1932—		
January	500,177.12	246,634.10
February	482,561.50	186,010.30
March	565,538.70	270,617.75
April	461,920.92	285,817.98
May	521,884.64	279,859.88

Tide Water Pipe Co., Ltd., also delivered in June 130,253.87 bbls. Oklahoma oil.

Average Daily Imports of Crude and Refined Oil at Principal United States Ports

Average barrels per day in 1931-32—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
July	26,387	11,226	104,678	29,323	21,772	193,387	6,903	7,419	4,194	.....	18,516	211,903
August	32,613	15,531	91,742	22,387	25,741	188,064	4,161	2,516	.....	3,162	9,839	197,903
September	27,067	7,267	106,867	30,099	22,967	184,267	4,833	3,333	.....	.....	13,166	197,433
October	53,710	14,484	100,774	26,742	40,645	236,355	6,097	6,871	2,097	1,838	16,903	253,258
November	48,033	28,800	51,667	28,600	12,967	170,067	3,933	10,833	3,033	1,367	19,166	189,233
December	20,258	16,806	121,807	31,645	34,258	224,774	1,968	4,355	.....	.....	6,323	231,097
1932—												
January	19,161	8,161	104,065	24,194	34,903	190,484	4,871	7,226	2,096	1,484	15,677	206,161
February	32,483	16,517	128,483	28,862	34,552	240,897	2,034	5,207	4,310	1,379	12,930	253,827
March	25,806	10,516	167,806	38,677	48,129	290,935	5,936	39,774	.....	1,516	47,226	338,161
April	37,167	18,467	158,233	35,733	39,400	292,000	6,767	44,600	2,167	3,333	54,867	346,867
May	31,161	2,065	170,226	50,774	14,935	269,161	903	710	4,194	1,516	7,323	276,484
June	30,900	11,700	199,300	22,733	29,900	294,533	.....	.....	12,867	.....	12,867	307,400

Average Daily Receipts of California Crude and Refined Oil at Atlantic and Gulf Ports

Average barrels per day in 1931-32—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
July	6,774	1,194	24,612	11,065	9,902	53,548	.....	.....	.....	.....	1,335	54,903
August	3,452	.....	16,419	7,419	4,290	31,580	.....	.....	.....	.....	968	32,548
September	4,267	3,667	12,933	4,699	7,367	32,933	.....	.....	.....	.....	4,000	36,933
October	2,355	1,129	19,290	16,709	9,323	48,806	.....	.....	.....	.....	3,323	52,129
November	1,000	.....	22,800	11,567	.....	35,367	.....	.....	.....	.....	3,366	38,733
December	3,161	.....	22,484	3,839	6,032	40,516	.....	.....	.....	.....	7,742	48,258
1932—												
January	3,871	1,710	14,483	3,774	5,710	29,548	.....	.....	.....	.....	.....	29,548
February	3,069	.....	9,103	4,862	.....	17,034	.....	.....	.....	.....	2,483	19,517
March	1,516	.....	6,065	.....	.....	7,581	.....	.....	.....	.....	.....	7,581
April	3,500	.....	19,333	3,867	4,833	31,533	.....	.....	.....	.....	.....	31,533
May	2,161	.....	15,226	13,774	3,871	40,032	.....	.....	.....	.....	.....	40,032
June	2,500	.....	17,333	3,933	833	24,600	.....	.....	.....	.....	.....	24,600

Gross Production of Crude Oil in the United States for 12 Months

(In Barrels of 42 Gallons)

1931—		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
July:	Month	16,093,322	16,420,080	33,827,213	3,089,832	1,287,585	1,715,730	2,905,909	3,341,000	78,680,671
	Daily average	519,139	529,680	1,091,200	99,672	41,535	55,345	93,739	107,774	2,538,078
August:	Month	15,668,984	9,517,279	32,279,816	3,141,323	1,165,569	1,584,444	2,807,143	3,167,000	69,331,558
	Daily average	505,451	307,009	1,041,284	101,333	37,599	51,111	90,553	102,161	2,236,562
September:	Month	15,180,610	7,946,880	28,981,525	3,147,030	1,138,380	1,641,384	2,761,230	3,632,000	64,429,039
	Daily average	506,020	264,896	966,051	104,901	37,946	54,713	92,041	121,067	2,180,968
October:	Month	15,651,935	12,951,893	30,725,173	3,177,066	1,172,389	1,822,255	2,797,597	3,900,000	72,198,356
	Daily average	504,903	417,803	991,134	102,486	37,819	58,782	90,247	125,807	2,328,979
November:	Month	14,997,700	16,430,730	28,880,561	3,131,676	1,130,700	1,851,577	2,706,390	3,639,000	72,748,325
	Daily average	499,923	547,691	962,018	104,389	37,690	61,719	90,213	121,300	2,424,946
December:	Month	15,566,984	16,598,299	27,767,651	3,198,642	1,082,145	1,971,817	2,816,759	3,645,000	72,641,300
	Daily average	501,967	535,429	903,860	103,182	34,908	63,607	90,863	117,581	2,343,269
1932—										
January:	Month	15,532,141	13,684,149	26,409,838	3,170,587	1,101,616	1,792,398	2,444,164	3,566,000	67,680,893
	Daily average	501,037	440,779	851,930	102,277	35,536	57,819	78,844	115,032	2,183,255
February:	Month	14,616,862	11,806,190	23,858,375	2,838,839	1,008,562	1,617,087	2,420,224	3,294,000	61,460,139
	Daily average	504,030	407,110	822,703	97,891	34,778	55,762	83,456	113,586	2,119,315
March:	Month	15,575,915	12,998,796	26,162,647	3,042,929	1,062,897	1,703,145	2,617,392	3,553,000	66,716,721
	Daily average	502,449	419,316	843,956	98,159	34,287	54,942	84,432	114,613	2,152,152
April:	Month	15,524,444	12,718,020	26,362,851	2,974,080	1,048,620	1,858,957	2,525,040	3,684,000	66,696,012
	Daily average	517,481	423,934	878,762	99,136	34,954	61,965	84,168	122,800	2,223,200
May:	Month	15,575,741	13,169,420	27,328,472	3,038,930	1,064,602	2,012,701	2,600,653	3,809,000	68,599,549
	Daily average	502,443	424,820	881,564	98,030	34,342	64,926	83,893	122,871	2,212,889
June:	Month	14,118,970	12,757,230	26,161,092	2,837,179	1,022,970	1,857,433	2,416,680	3,699,000	64,870,554
	Daily average	455,451	425,241	872,036	94,572	34,099	61,914	80,556	123,300	2,162,352
Total 12 months		184,097,656	156,978,966	338,725,214	36,788,107	13,286,038	21,428,928	31,619,211	42,929,000	826,053,129

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Tulsa, Oklahoma

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